

CITY OF WINTERS

PUBLIC REVIEW DRAFT

GENERAL PLAN ENVIRONMENTAL IMPACT REPORT

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UNIVERSITY OF CALIFORNIA

Prepared by:

Duncan & Jones

and

Associated Consultants

October 21, 1991

DRAFT
ENVIRONMENTAL IMPACT REPORT

DRAFT GENERAL PLAN

STATE CLEARINGHOUSE #91073080

City of Winters, California

October 21, 1991

Prepared by

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This **Environmental Impact Report** was prepared by **Duncan & Jones**, Berkeley, California, and its affiliate consultants. The Consultants have devoted their best efforts to preparing a comprehensive information document that identifies and evaluates the possible environmental impacts of the proposed Project, and the possible measures which could be taken to mitigate adverse impacts.

This report is intended to be a full disclosure document and is provided solely to assist in the evaluation of the proposed Project. The Consultant shall not be liable for costs or damages of any client or third party caused by the use of this document for any other purposes, for such costs or damages of any client or third parties caused by delay or termination of any project due to judicial or administrative action, whether or not such action is based on the form or content of this report or any portion thereof prepared by the Consultants.

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EXECUTIVE SUMMARY

This Draft Environmental Impact Report (DEIR) identifies and evaluates the potential impacts that would result from adoption and implementation of the 1991 Draft General Plan of the City of Winters, California. The Draft General Plan is a comprehensive statement of the City's long-term goals for its physical development and community characteristics, and includes policies and programs for the achievement of such goals, which include protection of the environment. Programs incorporated into the Draft General Plan, and which this DEIR also evaluates, are Master Plans for expansion of and improvements to the City's systems for traffic circulation, water supply, storm drainage and wastewater. The DEIR also considers a range of Alternatives to the Draft General Plan, which could serve its overall purposes with different configurations or distributions of land uses, or through other variations on the Draft General Plan.

The California Environmental Quality Act (CEQA) of 1970 as amended requires EIRs to be prepared for all projects which may have a significant impact on the environment. The following topic areas have been identified as subjects of principal concern in this DEIR:

- | | |
|--|----------------------------------|
| ◆ Land Use and Housing | ◆ Traffic and Circulation |
| ◆ Water Supply | ◆ Wastewater Treatment |
| ◆ Storm Drainage | ◆ Solid Waste Disposal |
| ◆ Fire Protection | ◆ Police Services |
| ◆ Parks and Recreation | ◆ Schools |
| ◆ Fiscal/Public Financing Considerations | ◆ Biotic Considerations |
| ◆ Geology, Soils, Seismicity and Hydrology | ◆ Noise Considerations |
| ◆ Air Quality | ◆ Visual Considerations |
| ◆ Conversion of Agricultural Land | ◆ Cultural Resources/Archaeology |

For each of these impact categories, this Executive Summary outlines the environmental impact that could result from approval and implementation of the proposed Project, as well as measures that have been identified to mitigate or eliminate those impacts. Each impact and mitigation measure is discussed in detail in the body of the EIR text.

SUMMARY OF SIGNIFICANT IMPACTS AND MITIGATION MEASURES

<u>Topic</u>	<u>Evaluation of Potential Impacts</u>	<u>Mitigation Measures</u>
<p>LAND USE AND HOUSING (Chapter III) Pattern of Development</p>	<p>The DGP designates land area for new urban development within an Urban Limit Line consistent with the existing Winters Sphere of Influence established by the Yolo County LAFCO. Land uses and permitted densities are established in order to accommodate an expansion of the population to 12,500 persons by the year 2010. The Draft General Plan incorporates goals and policies which limit approval of development proposals to those which promote orderly, compact and efficient growth and utilization of public services and infrastructure. (Goal I.A; Policies I.A.3,4,6,8; Program I.1). The potential impact of discontinuous development and wasteful extensions of urban infrastructure and services would be avoided.</p> <p>Alternatives II, III, IV, V and VI: Identical or equivalent policies would avoid significant impact.</p>	<p>No mitigation measures are necessary.</p>
<p>Population Increase</p>	<p>The DGP enables a population growth rate which is consistent with Winters past growth, and incorporates policies which will limit actual growth to the provision of adequate facilities and services. (Policy I.A.3). The potential impact of a population increase out-pacing the ability of the City to provide essential facilities and services would be avoided.</p> <p>Alternatives II, III, IV, V and VI: Identical or equivalent policies would avoid significant impact.</p>	<p>No mitigation measures are necessary.</p>
<p>Housing Density</p>	<p>The Draft General Plan designates land areas for development to occur at a variety of densities, including large areas at relatively very low density, the latter of which are difficult to efficiently serve with public facilities and services (e.g., roadways, water, sewer, and emergency response). Policies in the DGP direct the City to promote a sequence of development which efficiently util-</p>	<p>No mitigation measures are necessary.</p>

izes public facilities and services, and maintain a positive fiscal balance for the City in its decisions on development proposals. (Policies I.A.3,4,6). **The potential impact of an excessive proportion of development which makes inefficient use of facilities and services would be avoided.**

Alternatives II, III, IV, and VI: Identical or equivalent policies would avoid the significant impact.

Alternative V: Identical policies, but the extent of very low density development would be an excessive burden and a significant impact.

Housing Mixture
and Affordability

The Land Use Diagram and designations of the DGP provide for a variety of housing types and densities, in order to serve the goals and policies of the DGP to meet the housing needs of all economic groups. Other policies of the DGP direct the City to strive to meet its fair share of regional housing needs, to pursue a ratio of 75 percent single family homes to 25 percent multiple family dwelling units, to grant density bonuses as required by state law, and to seek out various means of funding assistance for the construction of new units affordable to lower income households. In addition, policies and programs for the rehabilitation and conservation of existing units, including those affordable to lower income households, are proposed, together with programs to develop new affordable housing. (Goal II.A; Policies II.A.1-21; Programs II.1-13). **The potential impact of an inadequate range of residential densities with characteristics of affordability would not be significant.**

Alternatives II, III and IV: Identical or equivalent policies would avoid a significant impact.

Alternative V: Identical policies, but inadequate residential density provisions would have a significant impact.

Alternative VI: Identical policies, and higher residential density provisions would promote affordability and avoid a significant impact.

No mitigation measures are necessary.

Topic	Impacts	Mitigation Measures
TRAFFIC AND CIRCULATION (Chapter IV)	<p>The DGP includes a Circulation Plan Diagram and Standards , which define the roadway network requirements of the designated land uses within the ULL. Roadways are classified according to their function, with defined cross-sections showing medians and paths or sidewalks. The Diagram identifies the following roadways for new construction or major improvements: Main Street Loop Road; Railroad Avenue/Street; Grant Avenue (I-505 to Railroad); Road 32A; Road 33; Valley Oak Drive; Hemenway Street; Railroad Street - Putah Creek Bridge; Grant Avenue - Dry Creek Bridge; Anderson Avenue; Taylor Street; East Baker Street; and a new Industrial Road. Six new traffic signals along Grant Avenue are also proposed.</p> <p>Using traffic forecasting methods and computer modeling in the context of existing and potential land uses and traveler behavior data, the evaluation demonstrates that the proposed roadway network will not result in significant congestion. Because widening Grant Avenue west its intersection with Railroad Avenue is not feasible, congestion at that intersection will be greater than other intersections (Level of Service [LOS] "D") which the DGP recognizes by specifically setting the standard for that intersection as LOS "D," while all other intersections are to be maintained as LOS "C" (Policy III.A.1). The Yolo County Congestion Management Plan (CMP) defines LOS "D" as the standard at which traffic is to be maintained, and most other intersections would operate above or well above that standard. The potential impact of unacceptable congestion, as defined by the Yolo County CMP, and the policies of the DGP, would be avoided.</p> <p>Alternative II: Identical roadway network, moderate traffic increase but a significant impact would be avoided. .</p> <p>Alternatives III, IV: Inadequate roadway network, and substantial traffic increases would have significant impacts.</p> <p>Alternative V: Minimal traffic increase, but inadequate roadway network would have significant impacts.</p> <p>Alternative VI: Promotes transit and non-vehicular trips and reduces traffic somewhat; roadway network is adequate and a significant impact would be avoided.</p>	No mitigation measures are necessary.

Topic	Impacts	Mitigation Measures
INFRASTRUCTURE SERVICES AND FACILITIES Water Supply System	<p>The DGP incorporates a Water System Master Plan, which identifies the needed improvements to the water supply and delivery system to accommodate the projected population increase, as well as alternative strategies for water conservation, and a groundwater study which indicates sufficient water supply to serve projected growth. Improvements to water system include the replacement of deteriorating water mains, extending water mains, constructing new wells, upgrading monitoring equipment, and requiring water meters on new development. The potential impact of an inadequate water supply and delivery system would be avoided, but the regional cumulative impact on groundwater is potentially significant.</p> <p>Alternative II, V and VI: Identical or similar Master Plan would avoid significant impact.</p> <p>Alternative III and IV: Similar system improvements, but lack of water conservation measures would have a significant impact.</p>	<p>No mitigation measures are necessary. In order to address potential cumulative impacts, the City should monitor groundwater levels to ensure that groundwater overdraft is not taking place. If groundwater levels are found to be dropping, then the Aggressive Program in the Water System Master Plan should be implemented, which has substantial water savings and would reduce the cumulative impact to a less than significant level.</p>
Sewer System	<p>The DGP incorporates a Sewer System Master Plan which defines needed improvements to the City's sewer collection system and existing treatment plan, and the need for a new treatment plant north of the city to serve the projected population. Extensions of sewer mains, replacement of old mains and relatively short-term improvements to the existing treatment facility are proposed. The potential impact of an inadequate sewer system would be avoided, contingent upon construction of a new facility, which will require subsequent environmental review pursuant to CEQA.</p> <p>Alternatives II, V and VI: Identical or similar Master Plan would avoid a significant impact.</p> <p>Alternatives III and IV: Inadequate improvements would have a significant impact.</p>	<p>No mitigation measures are necessary.</p>
Storm Drainage System	<p>The DGP incorporates a Storm Drainage Master Plan which defines the facilities and stormwater drainage systems necessary to accommodate new land use development, and in particular the de-</p>	<p>No mitigation measures are necessary.</p>

	Topic	Impacts	Mitigation Measures
		<p>velopment area within the presently defined 100-year flood plain area north and east of Winters that is also within the Urban Limit Line. Major features of the Master Plan are the construction of the Northern Stormwater Reservoir with an outfall channel to Putah Creek, the central Winters Detention Pond with an outfall to the Northern Reservoir outfall channel, and relocation of the Willow Canal. Extensions of storm drainage conduits and related facilities throughout the city are also defined. The potential impact of an inadequate storm drainage system would be avoided.</p> <p>Alternatives II and V: Identical Master Plan would avoid a significant impact.</p> <p>Alternatives III and IV: Inadequate provision for storm drainage would have a significant impact.</p> <p>Alternative VI: Substantially reduced drainage improvement requirements; suitable Master Plan would avoid significant impact.</p>	
S-6	Solid Waste	<p>The DGP would accommodate a substantial increase in population, which would result in corresponding increases in local waste disposal requirements. The existing County landfill facility can accommodate this increase, contingent upon effective progress in waste reduction as mandated by the state. The DGP directs the City to institute recycling and waste reduction programs in order to meet the state legal requirements (IV.E.1). In addition, the City will adopt a Source Reduction and Recycling Element to be submitted to Yolo County (Program IV.10). The potential impact of excessive solid waste generation would not be significant.</p> <p>Alternatives II, V and VI: Similar policies would avoid the significant impact.</p> <p>Alternatives III and IV: Inadequate policies would have a significant impact.</p>	No mitigation measures are necessary.
	EMERGENCY FACILITIES AND SERVICES (Chapter VI)	<p>The DGP would accommodate new development which would require substantial increases in fire and police protection services and facilities. The Land Use Diagram designates a site for an additional police/fire facility at the intersection of the Main Street Loop Road and Railroad Avenue, on the basis of an identified need for such a facility by the Fire District. The DGP requires that public services to serve new development, including fire and po-</p>	No mitigation measures are necessary.

Topic	Impacts	Mitigation Measures
<p>OTHER FACILITIES AND SERVICES Parks and Recreation (Chapter VII.A)</p>	<p>lice protection services, be developed and become operational as they are needed (IV.A.1), and that by the use of development fees, assessment districts, and other funding mechanisms, the costs of increased public services will be fairly shared by the development benefitting from those services (IV.A.4). Capital facility planning and budgeting, and the development review process, are to be used to ensure that levels of service adopted by the City are maintained (IV.A.3). The potential for inadequate fire protection and police services would be avoided. Alternatives II, III, IV, V and VI: Similar requirements and policies would avoid a significant impact.</p> <p>The DGP designates substantial areas for parkland to accommodate an increased population, in order to provide a ratio of five acres per 1,000 residents (V.A.1). The acreage designated, however, is greater than the projected population would require under this DGP policy. The DGP requires new development proposals to include the dedication of land or improvements, the payment of in-lieu fees, or a combination thereof, to the maximum extent permitted by law (V.A.2), which at the present time is three acres per 1,000 residents projected to inhabit the new development. If new development resulted in the dedication of land only, and no improvements (which could be obtained by other means), the result would be a ratio of about 2.4 acres per 1,000 residents, which, while below the DGP objective, represents a major increase in the existing ratio of parkland to residents. The potential impact of reduced parkland or recreation facilities would be avoided. Alternatives II, III, V and VI: Identical or similar provisions would avoid a significant impact. Alternative IV: Inadequate parkland site designations would have a significant impact.</p>	<p>No mitigation measures are necessary.</p>
<p>Schools (Chapter VII.B)</p>	<p>The DGP would require additional school facilities to serve the projected population, and the Land Use Diagram designates a number of sites for this purpose, but which would not accommodate all the students projected at buildout of potential develop-</p>	<p>No mitigation measures are necessary.</p>

Topic	Impacts	Mitigation Measures
FISCAL/ PUBLIC FINANCING CONSIDERA- TIONS (Chapter VIII)	<p>ment, under the Winters Joint Unified School District standards such as school capacity and classroom size. Because of the high cost of land and construction for facilities, and the extensive, established use of relocatable classrooms, their use is assumed to be continued to accommodate students which are not completely served by the designated school sites.</p>	
	<p>The DGP directs the City to assist the District in facility planning, promoting state school finance legislation, and obtaining funds for school facilities through development fees and other strategies (IV.H.2,3,4). To the extent possible, school facilities are to be completed and operating prior to occupancy of new residential developments which are responsible for the need for the new school (IV.H.5). The City will consult with the School District to ensure that individual residential developments mitigate their school-related impacts, to the extent allowed by law (IV.H.6). The potential impact of inadequate school facilities would be less than significant.</p> <p>Alternatives II, V and VI: Similar policies would avoid a significant impact.</p> <p>Alternatives III and IV: Excessively inadequate provision of school sites would have a significant impact.</p>	
	<p>The DGP would require a level of public expenditures for ongoing services, which is projected to exceed revenues by about \$970,000 at buildout of potential development in 2010, resulting in a major negative fiscal deficit. Police and fire protection requirements account for the majority (about 55 percent) of the projected deficit, because of the very substantial increase in service levels specified by the DGP, a factor which applies equally to the provision of parks and public works maintenance. In addition, because of the limits on increases in property tax revenues imposed by Proposition 13, the revenues available for services decrease over time relative to the need for services. While many cities in California can compensate for these obstacles with new commercial development, there is insufficient market demand in Winters for the amount of such development which would be adequate to compensate for the projected fiscal deficit. However, no actual deficit could be allowed, and it would be necessary for the City to lower</p>	<p>No mitigation measures are required to meet CEQA requirements. The City should select from among the following range of measures which are available and currently in use by other communities to reduce the potential effects of a General Fund imbalance:</p> <p>The adoption of an annual special tax, such as a Mello-Roos District or a parcel tax, for providing essential services (i.e., fire and police), subject to voter approval.</p>

Topic	Impacts	Mitigation Measures
BIOTIC CONSIDERATIONS (Chapter IX)	<p>costs, its levels of service, or if possible, increase revenues to meet the budget shortfall.</p>	<p>A Landscaping and Lighting District to cover the costs of providing required maintenance of new parks, or other Special Assessment District, to cover additional maintenance costs.</p>
	<p>The DGP directs the City to use a combination of assessment districts, utility user taxes, capital facility planning and budgeting, and other funding mechanisms, to provide adequate funding for the construction, operation and maintenance of public facilities and services, and to achieve and maintain adopted service levels (IV.A.3,5). These policies are considered to be inadequate to prevent a major General Fund imbalance. The potential effect of excessive service costs relative to service demands is major, but does not have a significant impact on the environment. Alternatives II, III, IV, V, VI: Smaller General Fund imbalance and identical policies, but effect would be major.</p>	<p>Delay raising public service standards until sufficient revenues to cover the associated expenditures are available.</p> <p>Should the implementation of the above-mentioned mitigation measures be infeasible or not approved by voters, the City Council should adopt a General Plan with a lesser or greater net new population.</p>
	<p>The DGP would result in the urbanization of large areas of agricultural lands that include important species of native vegetation, and other development could also affect riparian vegetation and potential wetlands. Development of the agricultural lands would also reduce foraging habitat for Swainson hawk (a state-listed threatened species). Other special status plant and animal species may be disrupted by development, but further surveys of the area would be required.</p> <p>The DGP directs the City to promote the continued use of agricultural lands to the greatest extent possible (Goal VI.B, Policies VI.B.1,2,4), to conduct surveys of riparian or wetland areas, (VI.C.1,2). require planting with native species, setbacks and limit recreational facilities along Putah and Dry Creeks, using detailed habitat management principles (Goal VI.D, Policies VI.D.1-4). Guidelines for erosion control measures are to be developed in cooperation with appropriate agencies and interest groups (VI.D.5). The DGP directs the City to participate in local and regional measures to protect, restore and maintain viable habitat for</p>	<p>Native plant species shall be used in future landscaping along public right-of-ways, parks, schools, and private developments to the extent possible.</p> <p>Flood control or drainage improvements to existing channels and other waterways shall be coordinated with representatives of the CDFG and Corps, to avoid disturbance of riparian, marshland or wetland vegetation or habitat.</p> <p>Prior to approving specific development plans, parcels encompassing or adjacent to riparian or other habitat shall be</p>

Topic	Impacts	Mitigation Measures
	<p>endangered and threatened species, with the aim of developing a region-wide Habitat Resources Plan (VI.C.4). These measures would not, however, prevent the ultimate loss of important vegetation resources or foraging habitat for Swainson hawk in agricultural areas. The impact on vegetation, and on the cumulative loss of Swainson hawk foraging habitat would be significant. Impacts on wetlands would not be significant, but it is appropriate to define more specific measures.</p> <p>Alternatives II, III, IV and V: Identical policies would have significant impact.</p> <p>Alternative VI: Substantially reduced area of urbanization would avoid significant impact.</p>	<p>surveyed for special-status plant and animal taxa. Surveys for raptor nests shall be conducted on parcels with large trees, adjacent to riparian and marshland habitat, or with habitat suitable for ground-nesting sites. The City shall work with the Corps, CDFG and other interested agencies to coordinate preparation of a Swainson Hawk Habitat Resource Plan (HRP).</p> <p>Putah Creek shall be surveyed for evidence of Valley elderberry longhorn beetle prior to any recreational development, and habitat restoration and conservation plans shall be incorporate measures defined by the Putah Creek Council and Putah Creek Advisory Committee.</p>
<p>GEOLOGY, SOILS, SEISMICITY AND HYDROGEOLOGY (Chapter X)</p>	<p>The DGP would accommodate an expanded population, which would increase the exposure of persons to the potential hazards of earthquakes in the region. The potential for destructive seismic events cannot be eliminated, but means are available for assuring the highest level of protection. The DGP directs the City to require the preparation of geotechnical reports, to ensure that, within technical and economic feasibility, new structures can withstand seismic events, soil instability or liquefaction which could potentially occur in Winters. Similar requirements are imposed on underground utilities, with particular emphasis on water and natural gas mains (VII.A.2). In addition, the City will institute a program requiring abatement of structural hazards in unreinforced masonry buildings, while offering loans and/or grants for abatement of selected buildings (Policy VII.A.3). These policies could ensure that both new development and unsafe existing buildings will meet as high a standard of structural safety as is reasonable or possible.</p>	<p>No mitigation measures are necessary. Specific examples of policy implementation on an individual, project-by-project basis are provided, concerning: compliance with the Uniform Building Code, taking into account the maximum anticipated seismic event; foundation engineering procedures; soil conservation in grading activities; revegetation; and temporary drainage control measures.</p> <p>With regard to the landfill</p>

Topic	Impacts	Mitigation Measures
NOISE CONSIDERA- TIONS (Chapter XI)	<p>The DGP also directs the City to adopt a Closure Plan for the old Winters landfill, in order to allow alternative uses of the site and to protect against potential degradation of local ground water quality. Subsequent environmental review pursuant to CEQA will be required for the Closure Plan, as well as further investigation. The potential impact of inadequate seismic safety measures is reduced to a less than significant level.</p> <p>Alternatives II, III, IV, V and VI: Identical or similar policies, including land fill closure procedure, would avoid a significant impact.</p>	<p>closure process, compliance with the RWQCB may require a number of specific measures to ensure protection of ground-water quality. Additional investigations should be conducted to determine the extent of hazardous materials in the landfill and their risks to the environment from alternative uses, as well as a major seismic event.</p>
	<p>The DGP will result in substantial increases in traffic noise along selected routes. The DGP directs the City to enact a range of measures and standards for residential development, and guidelines for the design and location of sensitive areas within dwelling units, and of sensitive land uses within individual development projects (VII.E.2-11). Exterior noise is to be minimized through designs which locate outdoor activity spaces in the least affected areas such as in rear yards, patios and decks, or by berms, walls and setbacks (VII.E.10.a,d). The policies emphasize insulation and configuration of residential uses, but do not directly isolate residential land uses from high-traffic roadways. The means of avoiding significant noise impacts are requirements for noise studies, extensive soundproofing insulation, noise barriers and setbacks, which may not be practical or cost-effective in most circumstances. Existing residences near new and existing roadway segments, and new development adjacent to principle streets, would experience substantial increases in noise levels. The impact of adverse noise conditions would be significant.</p> <p>Alternatives II, III IV, V and VI: Similar traffic increases would have a significant impact</p>	<p>New residential development shall not be located adjacent to Grant Avenue, and shall be planned so as to minimize noise impacts on existing noise sensitive areas. (State Route 128). The City shall require the preparation of acoustical assessments for new residential projects proposed in noise impacted areas, using the adopted noise contour map to identify impacted areas. Sound walls shall be required where noise levels can not be mitigated through open space and buffer zones.</p> <p>Mitigation measures shall be required for projects that could cause the L_{dn} in existing residential areas to increase by 3 dB or more. The City shall adopt a quantitative noise ordinance to alleviate existing community noise problems.</p>

Topic	Impacts	Mitigation Measures
<p>AIR QUALITY (Chapter XII) Construction Dust</p>	<p>The DGP would result in extensive construction activity, which would have related air quality impacts considered to be potentially significant, although in general they are temporary in nature and limited in extent at any given time. The DGP provides a very general policy that construction-related air quality impacts are to be minimized (VI.E.6), and a program to ensure that adequate measures are employed for that purpose (Program VI.9), but these are not specified. The potential for construction-related air quality impacts is significant.</p> <p>Alternatives II, III, and IV: Similar amount of construction activity would have a significant impact.</p> <p>Alternative V: Smaller population would reduce impact to a less than significant level.</p> <p>Alternative VI: Smaller area of construction, but concentrated population would increase proximity of people to construction; impact would be significant.</p>	<p>The City shall require, through a dust control portion of construction mitigation plans, minimize earthmoving during periods of extreme winds; institute a watering and/or covering system for disturbed soils and stockpiles of debris, sand, etc.; sweeping of construction area and nearby streets, and limit the speed of all construction vehicles.</p>
<p>Urban/Rural Conflicts (Chapter XII)</p>	<p>The DGP would result in new residential neighborhoods adjacent to surrounding agricultural lands, which could result in complaints to farmers by new residents regarding waste burning, dust, odors, pesticide application and other similar activities, although their effects are generally temporary in nature. The DGP directs the City to adopt a right-to-farm ordinance to provide a means for grievances to be resolved, and also to incorporate buffers into residential projects along the western and northern boundaries of the Urban Limit Line, which are the primary borders with potential for conflicts (VI.B.3,4). However, specific guidelines such as width for the buffer areas is not defined. The potential impact of air quality conflicts due to adjacent urban/agricultural land uses would be significant.</p> <p>Alternatives II, III, IV: Increased probability of conflict due to higher density residential areas along urban/rural boundary, and similar policies would have significant impact.</p> <p>Alternative V: Semi-rural density would minimize potential for conflict, and would avoid a significant impact.</p> <p>Alternative VI: Greatly reduced extension of urban uses, and large designated buffers would avoid significant impact.</p>	<p>Buffer zones shall be required for new residential development adjacent to active agricultural uses, and the width shall be determined by the type of agricultural activities involved. City staff shall develop guidelines for the width of buffer zones for various types of agricultural activities, to be used in the review of subdivision proposals.</p>

Topic	Impacts	Mitigation Measures
Carbon Monoxide Concentrations (Chapter XII)	<p>An analysis of projected traffic conditions indicates that, assuming roadway improvements as defined in the Circulation Master Plan, curbside levels of carbon monoxide at selected intersections would be well below ambient state and federal standards. The DGP directs the City to ensure construction of needed transportation improvements as population increases (I.A, III. A), and the promotion of non-auto travel (I.B, III.G). The potential for local impacts of carbon monoxide concentrations would be avoided. Alternatives II, III, IV, V and VI: Similar traffic and policies; impact would not be significant.</p>	No mitigation measures are necessary.
Regional Emissions (Chapter XII)	<p>The DGP would accommodate development that would contribute to the daily increase in regional emissions from auto travel, with special concern for reactive hydrocarbons, and for oxides of nitrogen (the two precursors of ozone), which are to be reduced by five percent per year to meet the objectives of the Yolo/Solano Air Pollution Control District. Development and related traffic attributable to the DGP would contribute significantly to the regional increase in emissions.</p> <p>The DGP directs the City to avoid or mitigate potentially significant air quality impacts of new development (VI.E.2), and to promote expansion of employment opportunities within Winters to reduce long-distance commuting (VI.E.7); and actively promoting ridesharing (VI.E.8). Other air quality concerns of the DGP emphasize the need to balance jobs and housing (Goals I.A, I.E) and the promotion of non-automobile modes of transportation (I.A, III.G). The impact on regional air quality could be reduced, but the impact would be significant and adverse. Alternative II, III and IV: Larger traffic increases and identical or similar policies would have a significant impact. Alternative V: Smaller traffic increase would avoid significant impact. Alternative VI: Transit and non-vehicular trips would be promoted, and significant impact would be avoided.</p>	<p>All new developments within the city producing more than 200 trips per day shall be required to develop an air quality mitigation plan. This plan shall include an analysis of how the project would utilize site planning, mixed land uses, TSM measures (carpooling, van pooling, shuttle bus service, transit incentives, etc.) to reduce trip generation by 25 percent. Where this goal cannot be met by these methods, the plan shall provide for equivalent off- site mitigation through funding of air quality improvements such as new park and ride lots, and support of transit.</p>

Topic	Impacts	Mitigation Measures
VISUAL CONSIDERA- TIONS (Chapter XIII.A)	<p>The DGP would change the appearance of the community in substantial ways, and would result in the loss of many views and vistas now within the city and at its edges, while creating new open spaces and parks with substantially different visual characteristics and views. The overall visual character of the city will be substantially altered through the transformation of its surroundings from a rural environment to a mixture of primarily uniform, suburban housing, public facilities and business areas. The DGP incorporates multiple policies which would promote the small town image and agricultural character, the historic qualities of the central business district, as well as other scenic qualities, and the designation of Highway 128 as a Scenic Highway corridor. The potential impacts on Winters' scenic and visual resources would not be significant.</p> <p>Alternatives II, III and V: Similar changes; impact would not be significant.</p> <p>Alternative IV: More extensive potential business/industrial development; impact would be significant.</p> <p>Alternative VI: Introduction of mid-rise buildings and overall high density would have significant impacts.</p>	<p>No mitigation measures are necessary. However, some measures are identified for consideration and use in development of design guidelines for the scenic highway corridor, such as special landscape buffering, design features, or a special monument.</p>
LIGHT AND GLARE CONSI- DERATIONS (Chapter XIII.B)	<p>The DGP directs the City to reduce the potential for significant impacts in commercial or industrial lighting causing a glare disturbance in residential areas, or on night sky clarity in the Winters area. The contribution to regional loss of night sky clarity would not be significant.</p> <p>Alternatives II, III, IV: Larger population would marginally increase lighting; impact would not be significant.</p> <p>Alternative V: Smaller population would minimize glare; impact would not be significant.</p> <p>Alternative VI: Concentrated development would result in greater conflicts between commercial and residential land uses; impact would be significant.</p>	<p>No mitigation measures are necessary.</p>

Topic	Impacts	Mitigation Measures
CONVERSION OF AGRICULTURAL LAND (Chapter XIII.C)	<p>The DGP designates a substantial area for urban development which is or has been in active agricultural use. The conversion of agricultural land to urban uses, is a significant and unavoidable impact of urban expansion of the city. The DGP incorporates policies to promote the continued productivity of agricultural land, and to prevent its premature conversion to urban uses (Goal VI.B), such as directing the City to support agricultural uses until development or annexation is imminent (VI.B.1 and 2). Other forms of support for agricultural activities include support of legislation at the local and state levels for tax and other incentives (VI.B.3), a mixture of farmers' markets, on-site sales and special events (VI.B.4), and a commitment to adopt a right-to-farm ordinance (VI.B.6). The impact on agricultural productivity is significant and represents an unavoidable, adverse, cumulative impact.</p> <p>Alternatives II, III, IV and V: Equal area converted to urban use; impact would be significant.</p> <p>Alternative VI: The area to be converted to urban uses would be substantially reduced, but impact of smaller area would still represent a significant impact.</p>	<p>Future conversion of agricultural land to urban uses shall occur on lower quality soils. Existing farmland of high productive value shall be protected and conserved through planning policies that will minimize the likelihood of their conversion to urban use.</p> <p>A farmland protection program, under the auspices of a farmland trust shall be adopted that would utilize tools such as transfer of development rights and purchase of development rights or conservation easements.</p>
Urban/Rural Boundary	<p>The DGP designates residential land uses in a configuration which reduces the potential for constraints on agriculture due to incompatible land uses. The DGP requires buffers and a right-to-farm ordinance and similar policies. The potential for urban/rural conflicts would be reduced to a less than significant level.</p> <p>Alternatives II, III and IV: Higher density residential areas along urban edge, would have significant impacts.</p> <p>Alternative V: Semi-rural, low density residential areas would avoid significant impact.</p> <p>Alternative VI: Wide buffer area would avoid significant impact.</p>	<p>No mitigation measures are necessary. Additional specifications for adopted measures are defined for buffers and other means of minimizing potential conflicts.</p>

<u>Topic</u>	<u>Impacts</u>	<u>Mitigation Measures</u>
CULTURAL RESOURCES/ ARCHAEO- LOGY (Chapter III.D)	<p>The DGP will prevent development from occurring which would have a significant adverse impact on the city's cultural resources, including potential Native American archaeological sites and important architectural buildings and structures. The potential for an impact on cultural resources would be less than significant.</p> <p>Alternatives II, III, IV, V and VI: Identical or similar policies would avoid a significant impact.</p>	<p>No mitigation measures are required to avoid or lessen significant impacts on cultural resources. Some measures are identified as appropriate conditions for development procedures in the event of an archaeological discovery during excavation or other construction work, in areas which have not been surveyed in detail for archaeological resources. In addition, measures are suggested for promoting the use of government and private loans for refurbishing historical buildings and which support legislation to provide incentives for historical preservation.</p>

I. INTRODUCTION

This report, together with its appendices, constitutes the Draft Environmental Impact Report (DEIR) on the 1991 revision to the General Plan for the City of Winters. The purpose of the DEIR is to identify the environmental impacts expected to result from implementation of the 1991 Draft General Plan in terms of its physical configuration and provisions regarding the character of land use and community development in Winters. The General Plan is a comprehensive statement of the City's long-term goals for its physical development and community characteristics, and includes policies and programs for the achievement of such goals, which include protection of the environment. Among the programs interrelated with the General Plan are master plans for expansion of and improvements to the City's systems for traffic circulation, water supply, storm drainage and wastewater, which this DEIR evaluates together with the policies and programs of the General Plan. The Draft General Plan includes a Diagram with land use designations for existing, proposed and potential uses, which the City has defined as the preferable alternative of two options for land use configuration. The second option is a modification or variant on the land use plan or Diagram, in which a number of specific parcels are designated for residential development at a higher density than in the Draft General Plan Land Use Diagram. This Modified Draft General Plan is addressed in this EIR for the purpose of providing an evaluation of the environmental impacts of development likely to result from adoption and implementation of the higher density variant (Alternative II) as compared to the Draft General Plan (Alternative I). Additional alternatives are addressed in sequence in the final chapter of this EIR.

For the purposes of the California Environmental Quality Act (CEQA), the Draft General Plan is the Project evaluated in this EIR, and the term "Project" will be used interchangeably with "Draft General Plan," "Plan," "the DGP" or "Alternative I." The higher density land use plan will be referred to as "Alternative II", or "the Modified DGP." The City of Winters is the Lead Agency in the preparation of this EIR.

The 1991 Draft General Plan has been prepared with the participation of the Winters City Council, Planning Commission and other public bodies, as well as the citizens of Winters. Its provisions would enable the City to expand in land area and population, and to provide its residents with new public facilities and service-delivery systems, and expanded commercial services and employment-generating land uses. The Plan's land use element anticipates the development of approximately 3,000 additional dwelling units by the year 2010, to accommodate a total city-wide population of about 12,500 persons at that time. Annexation of approximately 500 acres would be required to meet the land area requirements of anticipated development. The annexation area is currently within the City of Winters' Sphere of Influence (SOI) adopted by the Yolo County Local Agency Formation Commission (LAFCO). An "Urban Study Area" is designated by the 1991 Draft General Plan outside the SOI boundaries, but the potential environmental impacts of this provision are not evaluated in this EIR at this time, because of the lack of detail

relating to the proposed character of use intended or the possible timing of change in the use of the area. Subsequent environmental review pursuant to CEQA will be required at such time any action by the City regarding the Study Area is considered.

The Modified DGP would provide for an increase of about 3,800 dwelling units (800 more than the Project) within the same area occupied by the Project, and is projected to result in a population of 14,000 persons by 2010 (1,500 more than the Project). Alternative II designates selected areas south of Niemann Street for moderately higher residential densities, but does not differ from Alternative I (the Project) in terms of any other changes in policy content, programs or implementation measures, including the various Master Plans.

The Draft General Plan represents a comprehensive revision and update of the eight elements of the existing General Plan, seven of which are mandated by State Law: Land Use, Housing, Open Space, Conservation, Circulation, Noise and Safety. The existing Winters General Plan incorporates an Historic Preservation element as an eighth plan element. The Draft General Plan addresses nine subject areas, which incorporate the seven mandatory elements, and includes policies and programs for administration and implementation of the General Plan.

A. NATURE AND PURPOSE OF THE ENVIRONMENTAL IMPACT REPORT

The California Environmental Quality Act of 1970 as amended (CEQA), requires EIRs to be prepared for all projects which may have a significant impact on the environment.

An EIR is an informational document, the purpose of which, as stated in the State Guidelines, is "...to identify the significant effects of a project on the environment, to identify alternatives to the project, and to indicate the manner in which such significant effects can be mitigated or avoided." The information contained in this report is intended to be objective and impartial, so as to permit the reader to arrive at an independent judgment as to the probable character and significance of the impacts resulting from adoption of the Draft General Plan.

The primary purpose of this EIR is to address the character and extent of changes proposed for the City of Winters as represented by the 1991 Draft General Plan. The analysis is intended to be general in its indication of the nature and scale of potential impacts, and does not address possible impacts related to the layout and design of structures, infrastructure and other physical improvements, the details of which are as yet undetermined. The EIR serves as a program EIR for adoption of the City's 1991 General Plan program.

In accordance with CEQA Guidelines, an EIR on a program action, such as adoption and implementation of a local general plan, contains a less detailed assessment of impacts than would be

provided by an EIR on a specific development project. CEQA Guidelines (Section 15146(b)) state that an EIR on the adoption or amendment of a general plan "should focus on the secondary effects that can be expected to follow from the adoption or amendment, but the EIR need not be as detailed as an EIR on the specific construction projects that might follow." This report is intended to provide the level of analysis necessary to comply with this provision of CEQA Guidelines. Discretionary approvals of individual projects, such as subdivision maps, rezonings or use permits, may rely on the EIR only to the extent that the EIR provides sufficient site-specific information. Each individual project may be subject to preparation of an Initial Study as defined by CEQA to verify that no different or additional significant impacts identified in this EIR would result from the individual project approval. Individual projects which may have significant environmental impacts may refer to this program EIR in individual project EIRs.

This EIR assumes that detailed site development or engineering plans will not deviate substantially from the type of use, intensity, location or sequence of development defined in the Draft General Plan, except as defined by Alternative II. This EIR, once adopted, will provide the basis for approving development projects which are consistent with the Draft General Plan. The EIR must be certified in coordination with approval and adoption of the General Plan, which must include a land use plan and diagram, to which proposed development projects are to conform. In the event that subsequent development proposals suggest a substantive departure from the Plan in these regards, or incorporate information other than that used as the basis for evaluation in this EIR, it may be necessary to consider the extent to which such modifications change the character or significance of the impacts identified in this report, and to document these changes in a supplement or addendum to this report. In addition, detailed evaluation of new construction projects must await submission of formal site development plans, engineering drawings, architectural details or other specifications which may or may not coincide in every detail with the general character of proposals evaluated in this report. Specific considerations related to these detailed design plans may require evaluation in addenda or supplements to this EIR, or in subsequent EIRs, as defined in CEQA Guidelines (Section 15160-15164).

This EIR is to be used as the basis for adoption of the General Plan as it may be modified from the Draft General Plan, and for approval of the Circulation, Water System, Sewer System and Storm Drainage Master Plans, and the Financing Plan. Each of these Plans is incorporated into this EIR by reference. In addition to the use of this EIR by the City of Winters for its adoption of the General Plan and approval of the infrastructure master plans, the EIR will serve as the environmental review document for the Yolo County Local Agency Formation Commission (LAFCO) on the annexation applications by the City of Winters. Other agencies which may use the EIR in their decision-making include the Federal Emergency Management Agency (FEMA), for the proposed revision of the flood plain maps, the Regional Water Quality Control Board, and the Yolo County Flood Control and Water Conservation District, and the state Department of Transportation (Caltrans).

B. CONTENT OF THE EIR

This EIR evaluates the impacts of the Draft General Plan. The City of Winters has identified the following issues in the Initial Study (see **Appendix A**) to be of principal concern in the EIR:

- ◆ Land use and population growth
- ◆ Traffic and circulation
- ◆ Soil and geologic considerations
- ◆ Water supply
- ◆ Wastewater systems
- ◆ Storm drainage
- ◆ Solid waste
- ◆ Power and natural gas
- ◆ Communications
- ◆ Plant and animal life
- ◆ Fire protection
- ◆ Police protection
- ◆ Schools
- ◆ Parks and recreation
- ◆ Roads and other facility maintenance
- ◆ Other governmental services
- ◆ Risk of upset
- ◆ Visual considerations
- ◆ Housing
- ◆ Air quality
- ◆ Noise characteristics
- ◆ Loss of natural/agricultural resources
- ◆ Energy
- ◆ Fiscal and economic impacts
- ◆ Archaeological and cultural resources

Topics of special interest and concern include the following:

- ◆ The jobs/housing balance and housing demand/supply factors.
- ◆ The effects of proposed development on the biological, natural resource and habitat values along Putah and Dry Creeks.
- ◆ The impacts of the proposed lake and flood control system.

A description of the Project area and the Draft General Plan is presented in Chapter II. Within each chapter thereafter, the character of existing conditions applicable to the respective topic addressed is described under the subheading "Setting." Under "Impacts," the potential impacts and significance of the Plan are evaluated, firstly in terms of the effects of *development, without* the mitigating effects of the proposed policies and programs of the Plan, and then *within* the context of those policies and programs, in order to evaluate both the physical development implications of the Plan, and the capability of the Plan for minimizing environmental impacts of such development. At this point, the potential impacts which are determined to be *not significant* are listed, and the impacts of the Plan which would remain significant *after* implementation of the General Plan policies for protecting the environment are listed and enumerated (i.e., Impact 3.1 is the first

significant Impact discussed in Chapter III, and the corresponding Mitigation Measure is also numbered 3.1, or possibly 3.1.a).

In those cases where development occurring on the basis of the Modified DGP Alternative (Alternative II) will have impacts which are significant, greater, substantially reduced or avoided in comparison with the Project, the same process of evaluation will be used (i.e., defining direct development impacts, then impacts as mitigated by proposed policies). If Alternative II will not have any meaningful difference from the Project with regard to a certain environmental impact, this will be stated in the introduction to the pertinent chapter of the EIR.

Under the heading "Mitigation Measures," corrective measures are identified (and numbered) which are available to reduce significant impacts resulting from Draft General Plan policies and programs to a less than significant level. The extent to which each mitigation measure will be indicated as to whether it addresses only the Project, only Alternative II, or both Alternatives I and II, will be defined. Each mitigation measure is related to an impact determined to be significant, and the probable result of its application and use in reducing the impact to a less than significant impact will be indicated. More than one mitigation measure may be identified to address a specific impact, and some measures may address a more than one significant impact, and these relationships will be appropriately referenced.

The significance of each impact is also identified according to categories mandated by CEQA (Sections 15126, 15128 & 15130), as unavoidable, irreversible, long-term, growth-inducing, or as cumulative in nature. This stage of evaluation will be limited to addressing those impacts which remain significant within these categories (e.g. unavoidable, growth-inducing, etc.) *after* both the Draft General Plan policies and the identified mitigation measures have been considered. Within these categories, any differences in impact between the Project, and Alternative II will be identified. Any additional mitigation measures that appear necessary to address these mandatory findings of significance, will be listed accordingly.

In Chapter III, the land use and housing aspects of the Draft General Plan are evaluated in terms of the apparent effectiveness of its planning and policy provisions within the local and sub-regional context. The existing traffic and circulation conditions, and the transportation-related impacts of the Draft General Plan and Alternative II are addressed in Chapter IV. The capabilities of public services and facilities, including storm drainage, water supply, wastewater disposal and solid waste facilities to accommodate increased demands generated by the implementation of Alternatives I and II respectively, are discussed in Chapter V, together with an analysis of the proposed improvements to these systems defined by the related Master Plans.

In Chapter VI, fire and police protection services relating to the implementation of the General Plan are examined. Governmental services such as parks and recreation, schools and public

works, and public utilities, which would be affected by future development as envisioned by the new General Plan will be discussed in Chapter VII. The fiscal impacts and public improvement financing requirements relating to General Plan implementation, as well as the proposed Development Fee structure, are examined in Chapter VIII.

The biological and natural habitat environment of the Winters area, particularly along Putah and Dry Creeks, and the potential impacts on these conditions that may result from implementation of the Plan are examined in Chapter IX. In Chapter X, geotechnical, seismic and soil considerations are evaluated, and Chapter XI contains an evaluation of the acoustic conditions that implementation of the Plan would produce. In Chapter XII the existing and projected air quality characteristics are discussed, and in Chapter XIII, other considerations are examined, regarding the conversion of agricultural land, potential archaeological and cultural resources, visual or aesthetic factors, and the potential light and glare impacts of development envisioned in the Draft General Plan.

Chapter XIV summarizes the overall effects of the Project in terms of the categories of impacts mandated by CEQA (Sections 15126, 15128 & 15130). The unavoidable and irreversible adverse impacts are listed as described in the preceding chapters, together with the long-term, growth-inducing and cumulative impacts that were identified. Effects which were found not to be significant are also summarized.

In Chapter XV, alternatives to adopting the Draft General Plan (or the Modified DGP Alternative) as defined in Chapter II are presented and evaluated. Alternative III consists of the existing General Plan, as amended in accordance with the proposal known as the "North Area Specific Plan" (NASP) which is projected to result in a larger population and degree of commercial development within the study area. As required by CEQA (Section 15126 (d)(2)), the "No-Project" alternative, as represented by the Existing General Plan, is considered as Alternative IV. A "Reduced Urbanization" Alternative (Alternative V) is also evaluated, which reflects a land use configuration characterized by large areas of lower density residential development, and less extensive requirements for public facility improvements.

Alternative VI, the "Compact Development Plan" Alternative, has been defined to present a variation on the Draft General Plan policies and its pattern of development, and is designed to avoid or lessen the significant impacts of the Plan which cannot be reduced to a level that is less than significant, while still meeting the objectives of the General Plan program. Alternative VI is devised by the preparers of the EIR on the basis of the evaluation of the General Plan in the preceding chapters, and constitutes the "environmentally superior alternative" for the purposes of CEQA.

The primary purpose in defining and evaluating alternatives is to enable their relative effects to be identified and assessed, and thereby to provide a comparative yardstick for measuring the character and weight of factors involved in any consideration of tradeoffs between mixtures of negative and positive attributes. Each of the alternatives are evaluated with regard to their relative impacts under each of the main categories of environmental impacts, from land use issues through transportation, infrastructure, fiscal effects, air quality, noise and other effects. A final section of Chapter XV compares all of the Alternatives (including the Project and the Modified DGP) in the context of the summary provided in Chapter XIV (i.e. impacts that are unavoidable, irreversible, etc.).

Chapter XVII lists the persons involved in the preparation of this report, the persons and organizations contacted, and the reference materials utilized.

The Appendices include the Environmental Checklist for the General Plan, together with letters of response to the Notice of Preparation, etc.). Other Appendices include methodological material from the fiscal analyses, a list of wildlife species in the Winters area, and mitigation guidelines for selected special status species.

Every effort has been made to ensure that this EIR is useful in the decision-making process. To this end, the report has been made as concise and as readable as possible through the use of references to other sources of information. The report includes references to figures and statistical tables found either in the text or in the appendices. Parenthetical references are also made in the EIR text to individuals who have provided information in telephone or other conversations. In addition, the numbers assigned to documents in the bibliography are used as references throughout the report. These references are shown in parentheses, for example: (Ref. 20) or (Ref. 26, page 9). This reference system is used in lieu of footnotes.

To the greatest extent possible, the analysis of impacts has been expressed in a quantitative form in unit measure terms (e.g. estimated number of trips per dwelling unit; average daily sewage flows in terms of gallons per dwelling unit per day, etc.). This will allow the analyses to be adjusted and extrapolated to accommodate minor changes in the proposed Project, if necessary, and permit impacts of variations in the components of the proposed development (e.g. modifications in distribution of acreage by type of use) to be recalculated and re-determined. These subsequent approvals can be made when it can be demonstrated through an Initial Study, as defined by CEQA, that no new or different significant environmental impacts other than those identified in this EIR would result.

C. EIR AND GENERAL PLAN REVIEW PROCESS

This EIR evaluates the City of Winters Draft General Plan, in accordance with the CEQA process for reviewing projects which may have a significant effect on the environment. The EIR is intended to function as the environmental review document for the General Plan and the subsequent actions which would be required to enable development in the city of Winters as defined by the Plan, such as rezoning, annexations and related pre-zoning, tentative map approvals. These actions will require approval by the Winters Planning Commission and the City Council. The Yolo County Local Agency Formation Commission (LAFCo) must approve any annexations, which will total approximately 500 acres. In accordance with State Law, the EIR is to be certified by the Planning Commission and City Council prior to the first discretionary approval action, including the adoption of the Draft General Plan.

Large areas of the designated development area are currently within the 100-year flood zone as defined by the Federal Emergency Management Agency (FEMA), which limits development occurring within such areas. Major expansion of and improvements to the local flood control system as proposed by the General Plan would enable the City to apply to FEMA for removal of these areas from the flood zone. This EIR will serve as the environmental review document for the flood control improvements, and as the basis for approval of the FEMA action.

The present document, the Draft EIR, is subject to a 45-day public review period, during which interested individuals, organizations and public agencies may offer written comments and questions on the DEIR's evaluation of the Draft General Plan. The public review of the Draft General Plan will also be carried out in conjunction with the review of the DEIR. In addition, public hearings will be held on the Draft EIR and the Draft General Plan, to provide an opportunity for verbal comments. Comments and questions on the DEIR will be compiled and responses to the comments will be prepared. The Response to Comments Document and the Draft EIR will together comprise the Final EIR. The Planning Commission will then review the Final EIR to verify that it provides a full and adequate appraisal of the Project, the major alternatives, and their effects.

A key purpose of the EIR is to identify mitigation measures which can reduce or eliminate significant impacts of the Project, and which can be incorporated into the Project. In the case of the General Plan, these mitigation measures may be incorporated into the final document as modifications to the General Plan before its formal adoption.

After review of the Draft and Final EIR and following action to certify the EIR as complete and adequate, the Planning Commission and the City Council will be in a position to determine whether the Project should be approved as submitted, be subject to revision, or be rejected. This determination will be based upon information presented on the Project, the possible alternatives

to the Project, their respective impacts and probable consequences, and the range of mitigation measures available.

D. MITIGATION MONITORING AND REPORTING

In accordance with State legislation (Ch. 1232, Statutes of 1988), a monitoring and reporting program must be established for the Project, when, and as approved, to ensure that in its implementation, it complies with mitigation measures incorporated as conditions of approval for the purpose of reducing or avoiding its anticipated significant environmental impacts. The legislation, adopted as Section 21081.6 of the California Public Resources Code, states that "the public agency shall adopt a reporting or monitoring program for the changes to the project which it has adopted or made a condition of project approval in order to mitigate or avoid significant effects on the environment." The program is to be adopted at the time that the agency (in this case, the City of Winters) makes findings for Project approval.

The mitigation monitoring and reporting program would include a Project description, list of required mitigation measures, program schedule, delegation of responsibilities and authority in the monitoring process, and procedures for monitoring, reporting, enforcement, and handling of disputes, appeals, and modifications. The program would be adopted as a condition of approval for the Project. Monitoring and reporting during Project development and construction would be conducted by the City of Winters, the individual site developers, and other public agencies affected by the Project. Separate, specific monitoring and reporting programs would be developed for sites within the City of Winters, following presentation of development proposals for those sites.

This Draft EIR identifies measures which appear to be available for and effective in mitigating the Project's significant environmental effects. The mitigation measures may be subject to change based on comments received on the Draft EIR during the public review period. For this reason, a specific mitigation monitoring and reporting program has not been established for the Project at this stage in the public review process. The monitoring and reporting program will be presented after publication and consideration of the Final EIR at the time that the Planning Commission and City Council take action on the proposed Project.

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II. DESCRIPTION OF THE PROJECT

A. INTRODUCTION

This EIR evaluates the Draft General Plan for the City of Winters, which represents a comprehensive revision of the existing General Plan, last revised in 1986. The Draft General Plan incorporates policies and programs for implementation of its goals and objectives, and is to be considered for adoption together with Circulation, Water, Sewer and Drainage Systems Master Plans, and fiscal management and administration strategies. This EIR evaluates the environmental impact of all of these aspects of the Draft General Plan, together with the character of the land use pattern that is defined by the Draft General Plan map. The Draft General Plan is defined in this EIR as the Project or Alternative I, and a Modified Draft General Plan is defined as Alternative II. This latter alternative differs from Alternative I only with respect to changes in the designated residential densities in several limited areas shown on the land use diagram.

This chapter of the EIR describes the organization of the General Plan, the general nature of existing development in the city, and lastly the character of land use development, City policy and capital improvements which are expected to result from implementation of the proposed Draft General Plan, and Alternative II.

The General Plan consists of two documents, the Policy Document, and the Background Report, which are developed in sufficient detail to enable the purposes of environmental review under CEQA to be served. The Policy Document contains Land Use and Circulation Plan diagrams, categories of land uses and street types, and the Goals, Policies and Implementation Programs of the Plan. The Background Report contains supporting information and data regarding existing conditions, much of which is required by state planning law (e.g., the descriptions of housing conditions in the city). The Background Report is an integral part of the General Plan, which describes the context in which the goals and other features of the Policy Document were prepared. The Background Report addresses ten subject areas as follows: land use; housing; population; economic conditions and fiscal considerations; transportation and circulation; public facilities and services; cultural and recreational resources; natural resources; health and safety; and scenic resources and urban design.

State planning law requires each community's General Plan to address seven mandatory elements: Land Use; Housing; Circulation; Conservation; Open Space; Noise; and Safety. The Winters Draft General Plan addresses Goals, Policies and Implementation Programs under nine section headings, six of which encompass all the elements required by the state. The remaining sections relate to public facilities and services, community design, and administration and implementation.

II. DESCRIPTION OF THE PROJECT

The relationship of these sections to the state-mandated elements and to the contents of the previous Winters General Plan, are expressed below (see following page):

<u>Draft General Plan</u>	<u>1986 General Plan</u>	<u>State-Mandated Elements</u>
Land Use	Land Use Element	Land Use
Housing	Housing Element	Housing
Transportation and Circulation	Circulation Element	Circulation
Public Facilities and Services	--	-- (Not mandated)
Recreational and Cultural Resources	Conservation, Open Space Recreation Element Historic Preservation Element	Open Space
Natural Resources	In Conservation portion of above combined Element	Conservation
Health and Safety	Safety and Seismic Element and Noise Element	Safety Noise
Community Design	--	-- (Not mandated)
Administration and Implementation	--	-- (Not mandated)

The introduction to the Policy Document includes definitions of key terms as follows:

"Goal: The ultimate purpose of an effort stated in a way that is general in nature and immeasurable.

Policy: A specific statement in text or diagram guiding action and implying clear commitment.

Standard: A specific, often quantified guideline, incorporated in a policy or implementation program, defining the relationship between two or more variables. Standards can often translate directly into regulatory controls.

Implementation Program: An action, procedure, program, or technique that carries out general plan policy. Implementation programs also specify primary responsibility for carrying out the action and a time frame for its accomplishment.

Quantified Objective (Housing only): The number of housing units that the city expects to be constructed and the number of households the City expects will be assisted through Housing Element programs and based on general market conditions during the time frame of the Housing Element."

The Land Use diagram incorporated into the Policy Document designates a substantial area north of the city for residential and other uses, on land largely outside the current city limits, but within the twenty-year Sphere of Influence (SOI) approved by Yolo County LAFCO in 1986. The Plan

II. DESCRIPTION OF THE PROJECT

provides detailed objectives for land use, circulation, public facilities and services, and for enhancement of the urban and natural environment.

The Draft General Plan was prepared by a professional planning consultant, J. Laurence Mintier & Associates, in consultation with the Winters Planning Commission and City Council. The Plan evolved out of previous work prepared in 1990 by the Plan Advisory Committee (PAC), whose members were appointed by the City Council. The fundamental purpose of the PAC and preparation of the PAC Plan was to respond to plans submitted by a consortium of property owners and developers, and to generate a new General Plan document that would serve as an alternative to the proposal of the consortium to amend the 1986 General Plan. The consortium had submitted a proposal for urban development in the areas north of the city in the form of a document titled the North Area Specific Plan (NASP) dated December 1988. The PAC released its Draft General Plan in February of 1990, and the Planning Commission completed its initial review of the PAC-formulated Plan in April 1990, after which additional studies, and the preparation of a new draft plan document were initiated.

B. LOCATION AND ENVIRONS OF THE PROJECT SITE

The city of Winters is located within Yolo County, California, immediately north of the Solano County line (defined by Putah Creek in this location), as illustrated in **Figure 1**. A combination of natural and man-made features, and jurisdictional factors have created a U-shaped set of barriers to the development of the city to the west (mountains), south (the county line) and east (U.S. Interstate 505). Highly productive agricultural land surrounds the city, and has formed the basis for the city's economy for most of its history. Agricultural productivity of the surrounding lands decreases towards the west and the Vaca Mountains.

The areas of the city which the General Plan designates for new development are located primarily to the north of the currently developed area of the city, and to a lesser extent to the east and west. The boundaries of the General Plan are defined as the Urban Limit Line for the year 2010, as shown in **Figure 2**, and consist of I-505 on the east, Putah Creek (the county line) on the south, Dry Creek and County Road 88 (extended) on the west, and County Road 32A (extended) on the north. North of CR 32A, the Plan incorporates a large area consisting of the City-owned wastewater treatment plant, and adjacent lands used as spraying fields, which are not designated for urban development in the Draft General Plan.

REGIONAL SETTING
Draft General Plan EIR
City of Winters, California

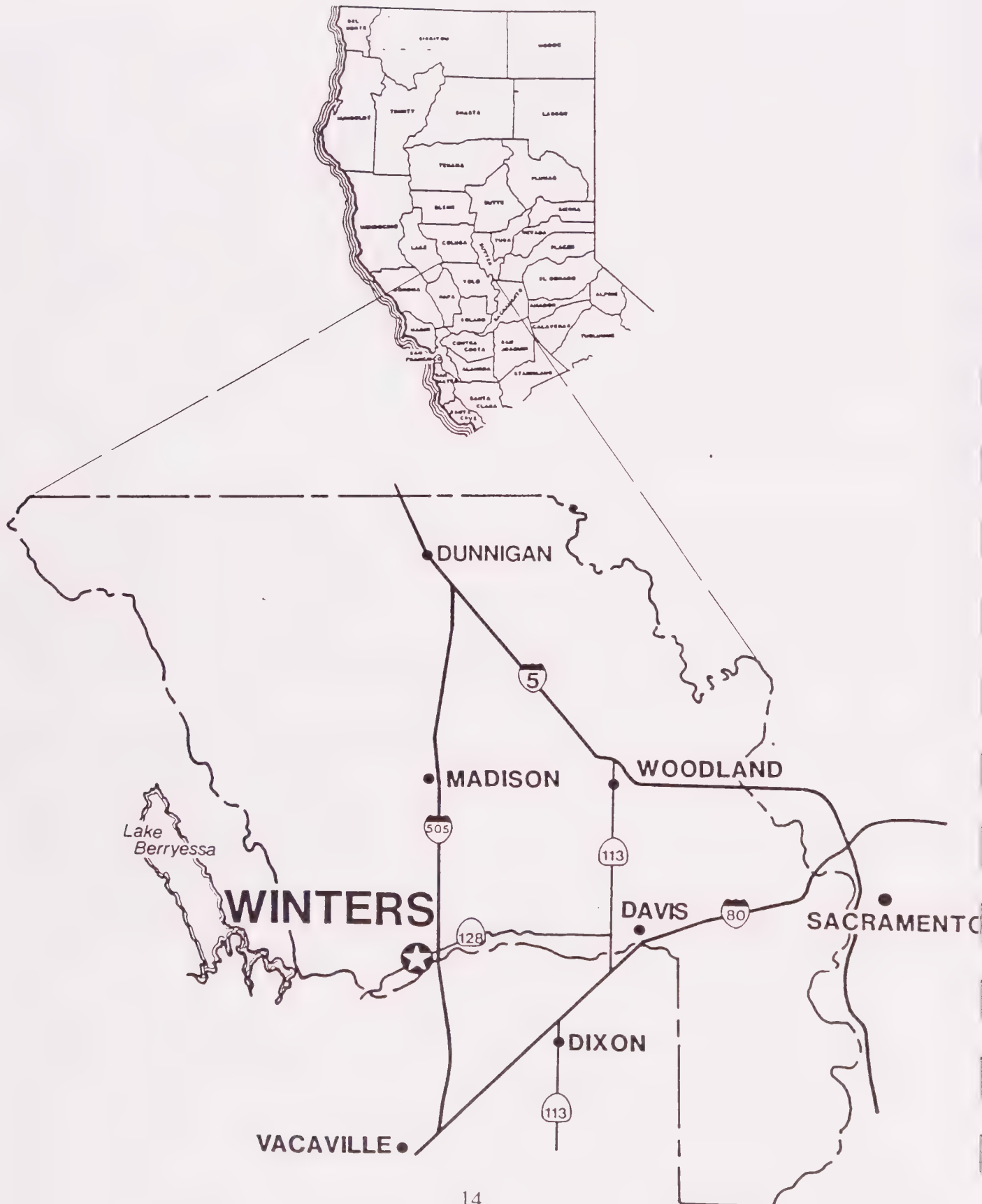






Figure 2

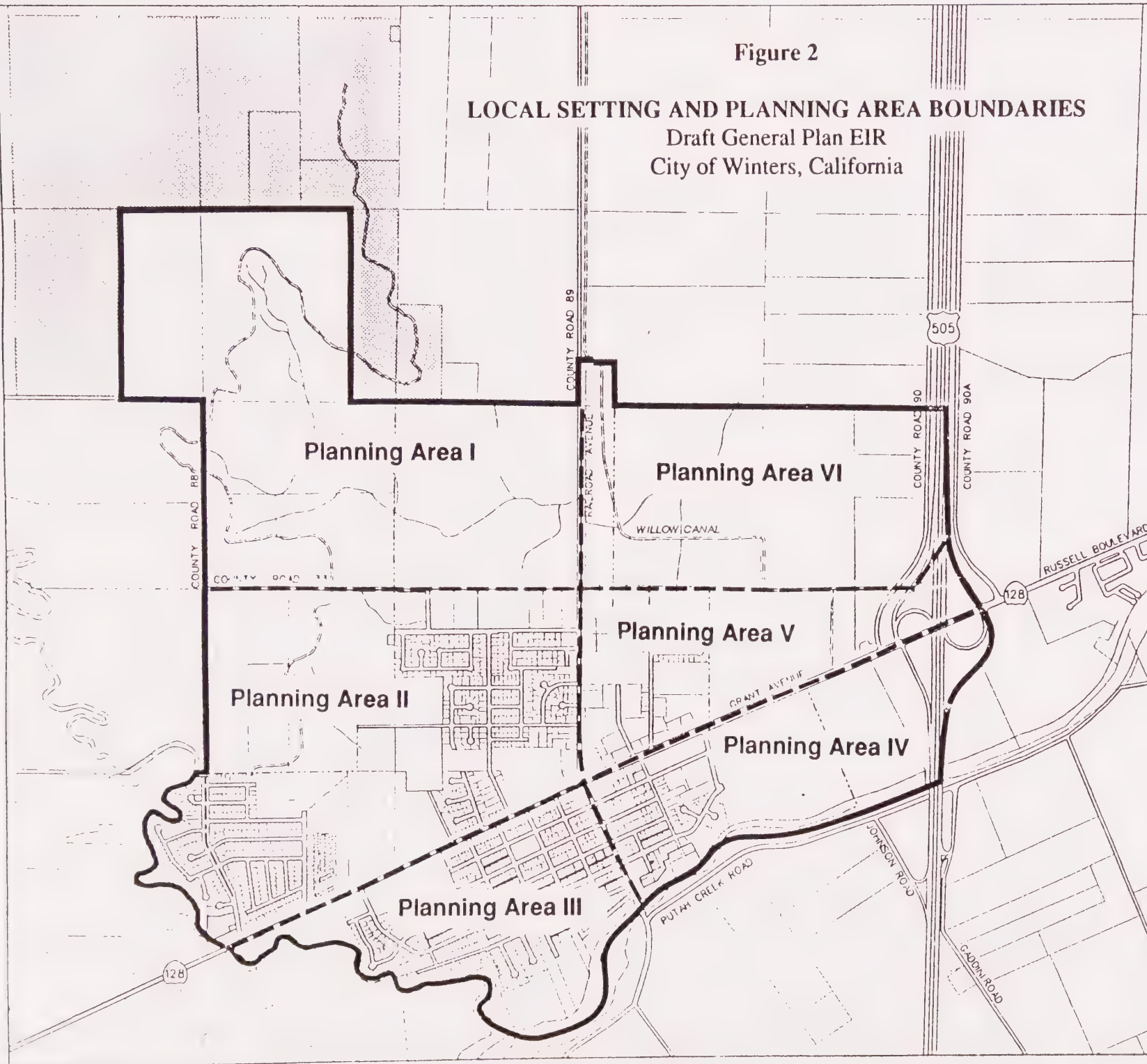
LOCAL SETTING AND PLANNING AREA BOUNDARIES

Draft General Plan EIR
City of Winters, California

FIGURE II-1

URBAN STUDY AREA

-  Urban Study Area
-  Urban Limit Line
-  City Limits
-  Planning Area Boundary



CITY OF WINTERS



BASE MAP: OCTOBER 1991

II. DESCRIPTION OF THE PROJECT

The areas to the north outside the City limits are within the City's current Sphere of Influence recognized by the Yolo County Local Agency Formation Commission (LAFCO). The area is divided into six Planning Areas defined by the outer limits of the Urban Limit Line, three principal streets and the planned extension of one of those streets (County Road 33), as shown in **Figure 2**. The current land uses in the Winters area are shown in **Figure 3**.

The city of Winters had a population in January 1991 estimated at 4,778 (Ref. 8), and contains a range of service, business and industrial uses. The existing land uses in the northern area consist of scattered homesites, cultivated cropland, orchards, pasture, and vacant and limited urban uses. The topography of Winters is generally flat with slightly rolling hills, punctuated by Putah and Dry Creeks which flow out of the Vaca Mountains. The elevation ranges from about 180 feet above mean sea level (MSL) on the west to about 125 feet above MSL to the east, with slopes of only about one to two percent grade. Contour lines appearing in several of the maps within this DEIR are at five-foot intervals. Drainage problems currently exist over much of the Winters area, primarily associated with Moody and Chickahominy Sloughs to the north of the city. These problems have been the focus of State and local flood control projects. Improvements proposed in the Storm Drainage Master Plan, incorporated into the Draft General Plan, are intended to reduce flooding problems.

C. DESCRIPTION OF THE DRAFT GENERAL PLAN

1. Overall Purposes of the General Plan Program

A program to revise and update the General Plan was initiated as a means of accommodating growth and expansion in a manner that protects the small-town qualities and other unique characteristics of Winters. The City wishes to encourage a balance between population and economic growth, which expands the opportunities and choices for its citizens, as well as serve regional demand for housing, business development, and a small-town lifestyle. A population increase over an approximately 20-year period from about 4,500 to 12,500 persons (the Project), or as an alternative, to as many as 14,000 persons (Alternative II), is considered by the City as a reasonable amount of increase that can be absorbed by the city over that period of time, within the area defined by the existing twenty-year Sphere of Influence boundaries.

A general plan is required for each city in California by state law to guide development and land use decisions, and other aspects of physical development. It serves as the "constitution" for how the city will be guided over the next 20 years. Like most constitutions, it may be subject to amendment, but the general plan is an essential framework for focussing the community's concerns on a common course of action and policy.

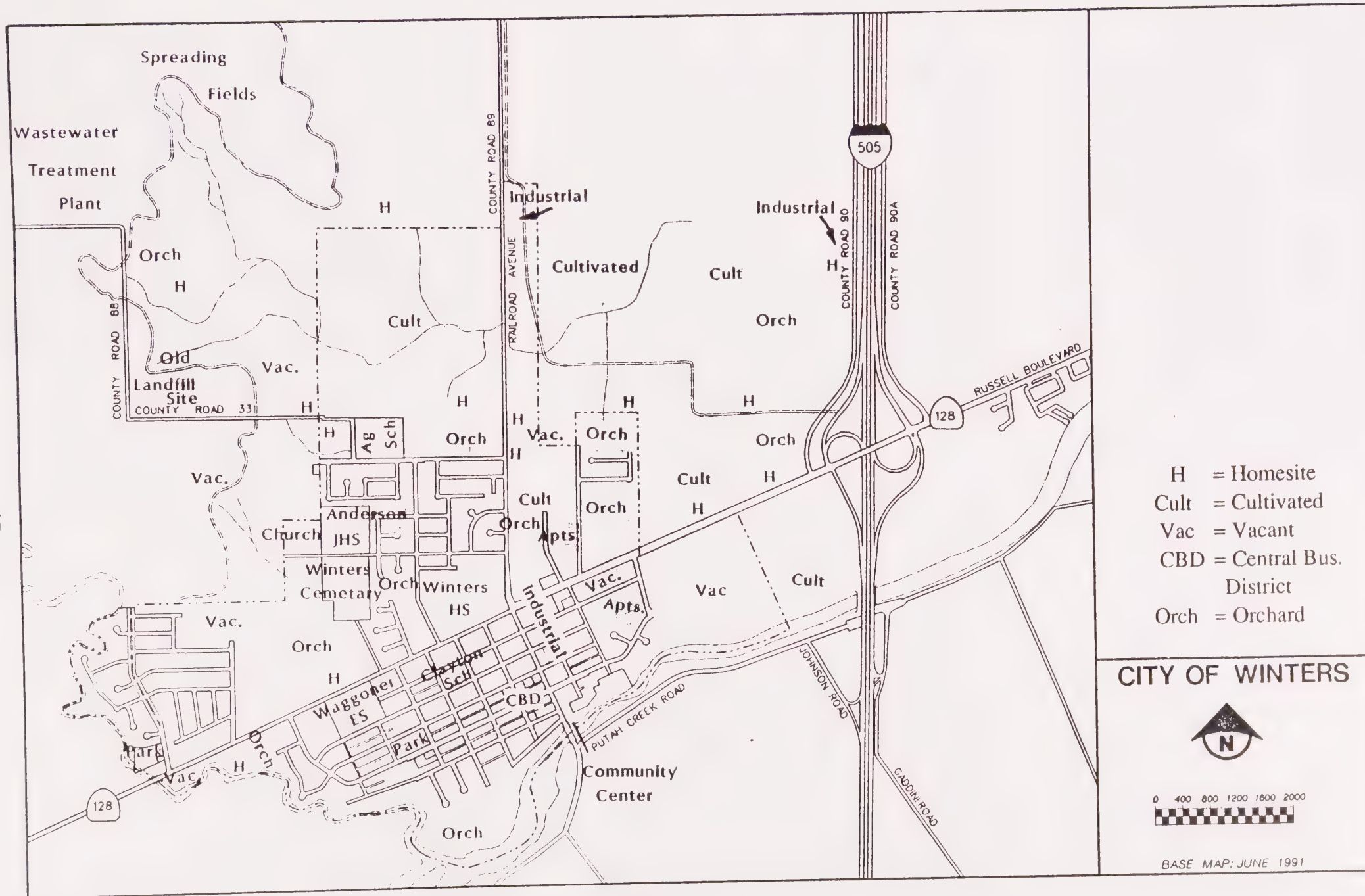


Figure 3

EXISTING LAND USES
 Draft General Plan EIR
 City of Winters, California

II. DESCRIPTION OF THE PROJECT

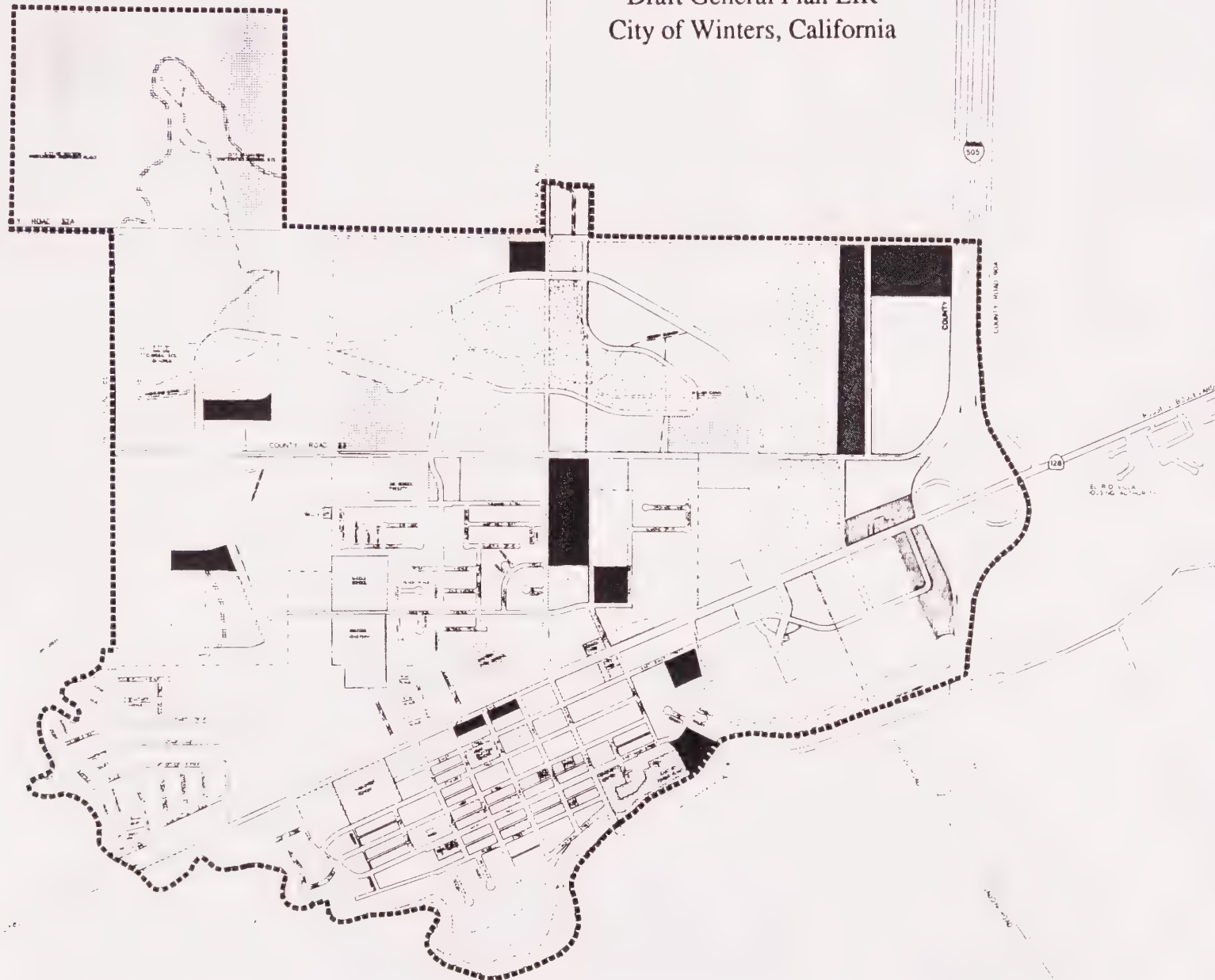
The proposed Winters Draft General Plan seeks to provide the land area required to meet the needs of the expanded population, including housing, public facilities, commercial services and employment-generating industrial areas, while protecting the city's small-town character, environmental quality, safety and health, and accessibility. Major features of the physical development promoted by the Draft General Plan include a new lake to serve as a public amenity and as a flood control facility, new school sites, a potential golf course area, a new loop arterial roadway, and an upgraded downtown area with multiple-uses and a strengthened pedestrian orientation.

Winters' town character is defined to include the surrounding open spaces, creek ways, agricultural lands and cultivation activities, public facilities such as park and schools, traditional residential neighborhoods and the historic, architectural and pedestrian-scale qualities of its central and downtown areas. There also are certain features and characteristics of the city, and some which would be expected to accompany new growth and development, which the City, through the General Plan and its related programs and master plans, intends to eliminate, avoid or minimize. Some existing conditions present obstacles to development, such as drainage patterns, roadway capacity, and public facilities, while others detract from town qualities, such as the industrial, agricultural product-processing facilities in the downtown. Potential problems which new growth could either exacerbate or introduce, include traffic congestion, excess demand for public infrastructure, and services, lack of open space, and various forms of environmental degradation (i.e., water, air, etc.). The prevention of adverse environmental effects, and avoidance of development which is disruptive to the established qualities of the city, combined with promotion of growth that enhances the community, are among the highest interests of the proposed Draft General Plan.

1. Land Use Designations

The Land Use and Circulation diagrams, designations and standards are provided in the Policy Document in a separate chapter from the Goals, Policies and Implementation Programs, which follow in nine subsequent sections. The Circulation Diagram and standards will be discussed in Chapter IV of the EIR, Transportation and Circulation. The Land Use Diagram, shown in **Figure 4**, is intended to be as specific as possible, although the locations of some future parks and schools are not established in more than conceptual terms. The land use designations specify the permitted building intensity of each use in terms of dwelling units per gross acre (density) for residential uses, and in terms of maximum floor-area ratios (FARs) for non-residential uses. **Figure 5** provides a summary of the acres of land in each designation in the Land Use Diagram.

Figure 4
LAND USE DIAGRAM
 Draft General Plan EIR
 City of Winters, California



**DRAFT GENERAL PLAN
 LAND USE DIAGRAM
 (12,500 POPULATION)**

- RURAL RESIDENTIAL 0.5 to 1.0
- LOW DENSITY RESIDENTIAL 1.1 to 4.0
- MEDIUM DENSITY RESIDENTIAL 4.1 to 6.0
- MEDIUM HIGH DENSITY RESIDENTIAL 6.1 to 10.0
- HIGH DENSITY RESIDENTIAL 10.1 to 20.0
- NEIGHBORHOOD COMMERCIAL (Residential Allowance 4.1 to 6.0)
- HIGHWAY SERVICE COMMERCIAL
- CENTRAL BUSINESS DISTRICT (Residential Allowance 6.1 to 10.0)
- OFFICE
- LIGHT INDUSTRIAL
- HEAVY INDUSTRIAL
- BUSINESS INDUSTRIAL PARK
- PUBLIC QUASI-PUBLIC
- RECREATION PARKS
- OPEN SPACE
- AGRICULTURE
- URBAN LIMIT LINE

OCTOBER 1991

CITY OF WINTERS



Scale: 1 inch = 1 mile

Map by: [illegible]

Figure 5

**SUMMARY OF LAND USE DESIGNATIONS AND ACREAGE
BY PLANNING AREA: ALTERNATIVE I**

Draft General Plan EIR
City of Winters, California

<u>Land Use</u>	<u>Planning Area</u>						<u>TOTALS</u>
	<u>I</u>	<u>II</u>	<u>III</u>	<u>IV</u>	<u>V</u>	<u>VI</u>	
<i>A. Residential</i>							
Rural Res. (RR)	50.0	0.0	0.0	0.0	0.0	0.0	50.0
Low Dens. (LR)	45.0	37.3	3.0	0.0	0.0	0.0	85.3
Med. Dens. (MR)	63.0	347.3	65.0	53.4	67.2	0.0	595.9
M. High Dens. (MHR)	0.0	13.0	67.0	11.6	0.0	69.0	160.6
High Dens. (HR)	8.0	5.2	3.0	7.2	18.9	0.0	42.3
Residential Subtotal	166.0	402.8	135.0	75.2	86.1	69.0	934.1
<i>B. Commercial</i>							
Nbhd. Comm. (NC)	3.0	5.7	0.0	8.7	10.6	5.0	33.0
Hwy. Svc. Comm.(HSC)	0.0	0.0	0.0	10.1	6.0	0.0	16.1
Cen. Bus. Dist. (CBD)	0.0	1.0	16.1	27.2	9.4	0.0	53.7
Office (O)	0.0	0.0	0.0	9.9	16.5	0.0	26.4
Bus. Park (BP)	0.0	0.0	0.0	34.8	0.0	0.0	34.8
Light Ind. (LI)	0.0	0.0	0.0	0.0	10.9	51.1	62.0
Heavy Ind. (HI)	0.0	0.0	0.0	0.0	0.0	24.0	24.0
<i>C. Public Uses</i>							
Rec. & Parks (RP)	30.0	16.6	2.9	11.4	5.0	32.0	97.9
Pub./Quasi-Pub.(PQP)	58.0	79.0	11.5	0.1	0.0	10.0	158.6
Open Space (OS)	33.0	0.5	21.0	2.6	25.1	99.1	181.3
TOTALS	290.0	505.6	186.5	180.0	169.6	290.2	1,621.9

II. DESCRIPTION OF THE PROJECT

Gross acres are defined as consisting of the total land available for development of the specified use, including local access streets, open space requirements, sidewalks and utility right-of-ways. A permitted density of 4.1 to 6.0 units per acre, for example would allow a maximum of 24 units on a 4 acre site. Floor-area ratios express the relationship between the gross square footage of floor area within a building (on all floors) to the net square footage of land within the parcel. A FAR of 0.5, for example, would allow a building containing a total of 5,000 square feet of floor area on a 10,000 square foot parcel.

With the exception of public use designations (PQP, RP and OS), uses are permitted which are "similar and compatible" with the primary use in every land use designation, and public and quasi-public (PQP) uses are permitted in every designation except the Recreation and Parks (RP), and Open Space (OS) designations. The primary permitted uses and building intensity of each designation is described below:

<i>Rural Residential (RR):</i> Single-family detached homes, and limited agricultural uses.	Residential density: 0.5 - 1.0/acre
<i>Low Density Residential (LR):</i> Single-family detached homes.	Residential density: 1.1 - 4.0/acre
<i>Medium Density Residential (MR):</i> Single-family attached and detached homes.	Residential density: 4.1 - 6.0/acre
<i>Medium High Density Residential (MHR):</i> Single-family attached and detached homes, multiple-family residential units and group quarters.	Residential density: 6.1 - 10.0/acre
<i>High Density Residential (HR):</i> Single-family attached homes, multiple-family residential units and group quarters; lower densities subject to discretionary approval.	Residential density: 10.1 - 20.0/acre
<i>Neighborhood Commercial (NC):</i> Neighborhood and locally-oriented retail and service uses, and multiple family residential uses on discretionary approval.	Residential density: 6.1 - 10.0/acre Floor area ratio: 0.40

II. DESCRIPTION OF THE PROJECT

Central Business District (CBD): Residential density: 10.1 - 20.0/acre
Floor area ratio: 2.0;
(0.60 for non-commercial/office uses)
Retail, services, restaurants, hotels, professional and administrative offices, and multiple family residential units on discretionary approval.

Highway Service Commercial (HSC): Floor area ratio: 0.40
Restaurants, service stations, hotels, motels, retail and amusement uses oriented to highway traffic.

Office (OF): Residential density: 6.1 - 10.0/acre
Floor area ratio: 0.40
Professional and administrative offices, medical and dental clinics, laboratories, financial institutions, and multiple family residential units on discretionary approval.

Light Industrial (LI): Floor area ratio: 0.40
Industrial parks, warehouses, and light manufacturing.

Heavy Industrial (HI): Floor area ratio: 0.40
Manufacturing, processing, assembling, research, wholesale and storage uses, trucking terminals, and railroad facilities.

Business/Industrial Park (BIP): Floor area ratio: 0.40
Offices, light industrial, wholesale commercial and limited commercial uses.

Public/Quasi-Public (PQP): Floor area ratio: 0.50
Government-owned facilities, public and private schools, and quasi-public uses such as hospitals and churches.

Recreation and Parks (RP): Floor area ratio: 0.20
Public parks.

Open Space (OS): Floor area ratio: 0.05
Agricultural and recreational uses, habitat protection, water retention and similar uses.

Agriculture (AG): Residential density: 1 unit per parcel;
Minimum parcel size: 5 acres
Agricultural uses, single family homes, limited commercial and industrial uses related directly to agricultural uses.

In addition to the above designations, the Draft General Plan establishes five other designations which are not currently utilized in the Land Use Diagram, but are provided for future use. These are listed below:

Planned Residential (PR): Residential Density: negotiated
All categories of residential uses (except group quarters) and neighborhood commercial uses. A temporary designation for parcels prior to the adoption of master plans, after which conventional designations are established.

II. DESCRIPTION OF THE PROJECT

Community Commercial (CC):

Residential density: 6.1 - 10.0

Floor area ratio: 0.40

Local and regional-oriented retail and service uses, offices, restaurants, service stations, and multiple family residential units on discretionary approval.

General Commercial (GC):

Floor area ratio: 0.40

Large lot retail and wholesale commercial uses and offices.

Water-Related Commercial (WRC):

Floor area ratio: 0.20

Marinas, boat docks, campgrounds and associated retail and service uses oriented to waterways.

Special Study Corridor (SSC):

Building intensity: negotiated

A temporary designation for parcels with "considerable uncertainty with respect to the most appropriate future land uses." No new uses are allowed prior to completion of a special study and adoption of conventional land use designations.

Figure 6 provides a similar summary by planning area of the proposed designations for vacant land (and underutilized land in the CBD), and the projected dwelling units and gross floor area by planning area are shown in **Figure 7**. The distribution of residential designations, in combination with projections for persons per household in low, medium and high density housing types, is intended to result in a population of 12,500 in 2010. This population figure is considered to be consistent with the ability of the City to provide public services, encourage the development of sufficient commercial services, attract employment-generating uses, and maintain a small-town quality of life for its residents.

The Modified Draft General Plan (Alternative II) is summarized in **Figure 8** in terms of the designations and acreages for vacant land, and for projected dwelling units. **Figure 9** shows the land use diagram for Alternative II. Alternative II represents a change only in the configuration and area of selected residential density designations, and does not incorporate changes to any non-residential designations included in the Draft General Plan land use diagram. Alternative II does not reflect any expressed or implied difference in the Policies, Programs or Implementation Measures of the Draft General Plan.

Alternative II was devised to reflect land use patterns which would result in an increased number of dwelling units and a larger population (14,000 persons) within the urban limit line, and to enable the environmental impacts expected to occur with a moderately higher density to be evaluated.

Figure 6

SUMMARY OF LAND USE DESIGNATIONS AND ACREAGE
FOR VACANT LAND: ALTERNATIVE I

Draft General Plan EIR
City of Winters, California

Land Use	Planning Area						TOTALS
	I	II	III	IV	V	VI	
<i>A. Residential</i>							
Rural Res. (RR)	50.0	0.0	0.0	0.0	0.0	0.0	50.0
Low Dens. (LR)	45.0	37.3	0.0	0.0	0.0	0.0	82.3
Med. Dens. (MR)	63.0	172.3	21.7	53.4	57.2	0.0	367.6
M. High Dens. (MHR)	0.0	7.0	0.0	2.2	0.0	69.0	78.2
High Dens. (HR)	8.0	5.2	0.0	0.0	14.6	0.0	27.8
Residential Subtotal	166.0	221.8	21.7	55.6	71.8	69.0	605.9
<i>B. Commercial</i>							
Nbhd. Comm. (NC)	3.0	1.7	0.0	8.7	10.6	5.0	29.0
Hwy. Svc. Comm.(HSC)	0.0	0.0	0.0	10.1	5.1	0.0	15.2
Cen. Bus. Dist. (CBD)	0.0	0.0	0.3	7.7	9.4	0.0	17.4
Office (O)	0.0	0.0	0.0	7.4	16.5	0.0	23.9
Bus. Park (BP)	0.0	0.0	0.0	34.8	0.0	0.0	34.8
Light Ind. (LI)	0.0	0.0	0.0	0.0	10.9	44.8	55.7
Heavy Ind. (HI)	0.0	0.0	0.0	0.0	0.0	24.0	24.0
<i>C. Public Uses</i>							
Rec. & Parks (RP)	30.0	13.6	0.0	11.4	5.0	32.0	92.0
Pub./Quasi-Pub.(PQP)	58.0	21.0	4.5	0.1	0.0	10.0	93.6
Open Space (OS)	33.0	0.5	21.0	2.6	25.1	99.1	181.2
TOTALS	290.0	258.7	47.4	138.3	154.4	283.9	1,172.7

Figure 7

**SUMMARY OF DWELLING UNITS AND COMMERCIAL GROSS FLOOR AREA
FOR VACANT LAND BY PLANNING AREA: ALTERNATIVE I**

Draft General Plan EIR
City of Winters, California

A. Residential - Dwelling Units¹

<u>Land Use</u>	<u>Planning Areas</u>						<u>TOTALS</u>
	<u>I</u>	<u>II</u>	<u>III</u>	<u>IV</u>	<u>V</u>	<u>VI</u>	
Rural Residential	40	0	0	0	0	0	40
Low Density	139	115	0	0	0	0	253
Medium Density	291	796	100	246	264	0	1,698
Med. High Dens.	0	53	0	17	0	531	601
High Density	123	81	0	0	224	0	428
Residential Total	593	1,046	100	264	489	531	3,023

B. Commercial Gross Square Footage²

<u>Land Use</u>	<u>Planning Areas</u>						<u>TOTALS</u>
	<u>I</u>	<u>II</u>	<u>III</u>	<u>IV</u>	<u>V</u>	<u>VI</u>	
Nbhd. Comm. (NC)	27.8	16.1	0.0	80.6	97.7	46.3	268.5
Hwy. Svc. Comm. (HSC)	0.0	0.0	0.0	93.8	47.0	0.0	140.8
Cent. Bus. Dist. (CBD)	0.0	0.0	14.8	334.5	123.2	0.0	472.5
Office (O)	0.0	0.0	0.0	68.5	89.9	0.0	158.4
Business Park (BP)	0.0	0.0	0.0	322.4	0.0	0.0	322.4
Light Industrial (LI)	0.0	0.0	0.0	0.0	101.0	414.3	515.3
Heavy Industrial (HI)	0.0	0.0	0.0	0.0	0.0	222.1	222.1
Commercial GSF Total	27.8	16.1	14.8	899.8	458.8	682.7	2,100.0

¹ Based on assumed actual densities: RR - 0.80 dwelling units per acre (DU/ac); LR - 3.08 DU/ac; MR - 4.62 DU/ac; MHR - 7.7 DU/ac; HR - 15.4 DU/ac. Source: City of Winters Public Works Department.

² Gross Square Feet (GSF) in thousands, based on variable floor area ratios as defined in the proposed 1991 General Plan.

Figure 8

**SUMMARY OF RESIDENTIAL LAND USE DESIGNATIONS,
ACREAGE AND PROJECTED DWELLING UNITS
FOR VACANT LAND BY PLANNING AREA: ALTERNATIVE II**

Draft General Plan EIR
City of Winters, California

A. Acreage

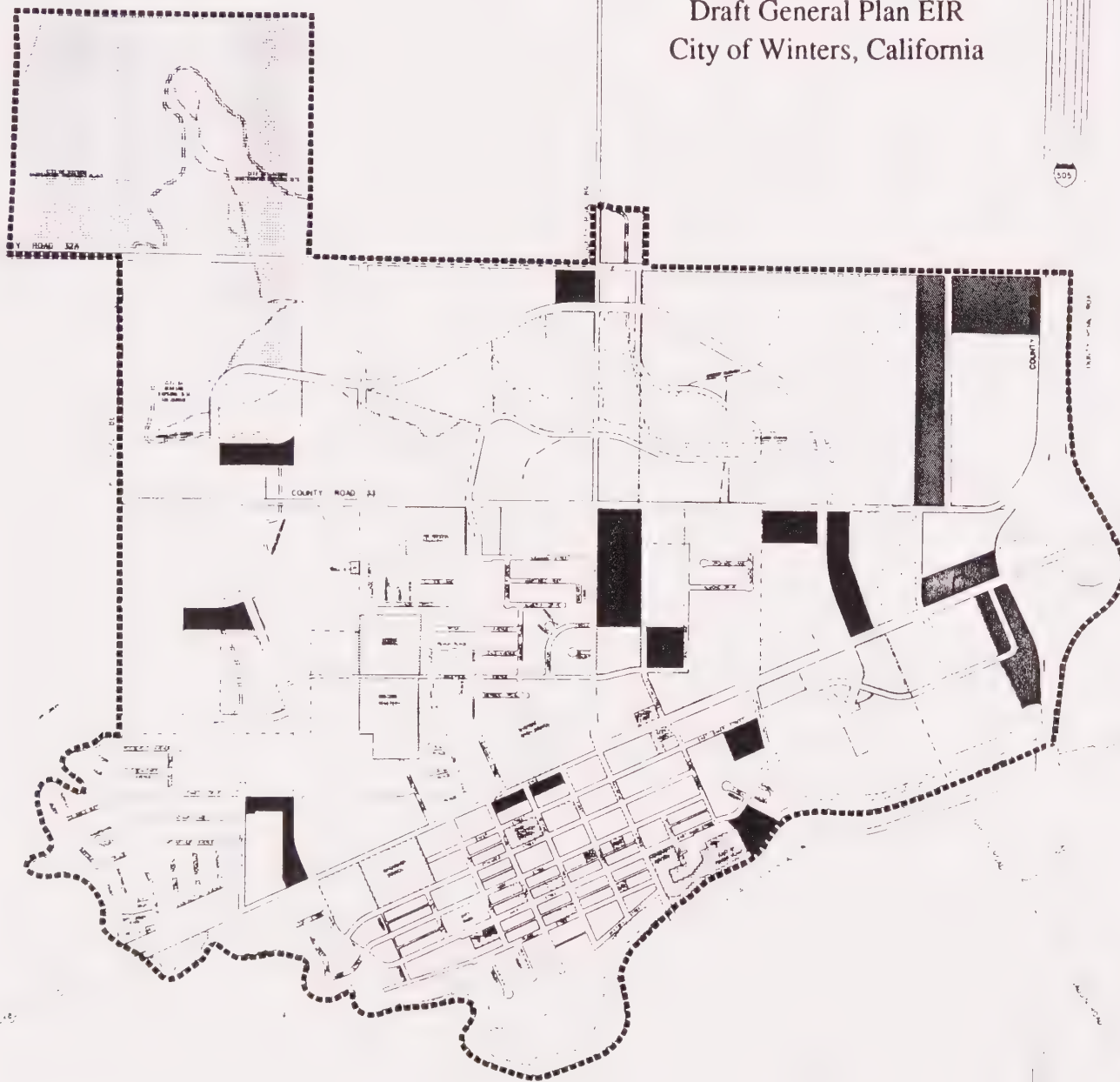
<u>Land Use</u>	<u>Planning Areas</u>						<u>TOTALS</u>
	<u>I</u>	<u>II</u>	<u>III</u>	<u>IV</u>	<u>V</u>	<u>VI</u>	
Rural Residential (RR)	30.0	0.0	0.0	0.0	0.0	0.0	30.0
Low Density (LR)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Medium Density (MR)	65.0	128.4	21.7	53.4	45.6	0.0	314.1
Med. High Dens. (MHR)	63.0	84.2	0.0	2.2	0.0	69.0	218.4
High Density (HR)	8.0	9.2	0.0	0.0	26.2	0.0	43.4
Acreage Totals	166.0	221.8	21.7	55.6	71.8	69.0	605.9

B. Dwelling Units¹


















<u>Land Use</u>	<u>Planning Areas</u>						<u>TOTALS</u>
	<u>I</u>	<u>II</u>	<u>III</u>	<u>IV</u>	<u>V</u>	<u>VI</u>	
Rural Residential	24	0	0	0	0	0	24
Low Density Residential	0	0	0	0	0	0	0
Medium Density Residential	300	593	100	247	210	0	1,450
Med. High Density Residential	485	649	0	17	0	531	1,682
High Density Residential	123	142	0	0	403	0	668
Dwelling Unit Totals	932	1,384	100	264	613	531	3,824

¹ Based on assumed actual densities: RR - 0.80 dwelling units per acre (DU/ac); LR - 3.08 DU/ac; MR - 4.62 DU/ac; MHR - 7.7 DU/ac; HR - 15.4 DU/ac. Source: City of Winters Public Works. Department.

Figure 9
LAND USE DIAGRAM:
ALTERNATIVE II
 Draft General Plan EIR
 City of Winters, California



DRAFT GENERAL PLAN
LAND USE DIAGRAM
(14,000 POPULATION)

-  RURAL RESIDENTIAL 0.5 to 1.0
-  LOW DENSITY RESIDENTIAL 1.1 to 4.0
-  MEDIUM DENSITY RESIDENTIAL 4.1 to 6.0
-  MEDIUM HIGH DENSITY RESIDENTIAL 6.1 to 10.0
-  HIGH DENSITY RESIDENTIAL 10.1 to 20.0
-  NEIGHBORHOOD COMMERCIAL (Residential Allowance 4.1 to 6.0)
-  HIGHWAY SERVICE COMMERCIAL
-  CENTRAL BUSINESS DISTRICT (Residential Allowance 6.1 to 10.0)
-  OFFICE
-  LIGHT INDUSTRIAL
-  HEAVY INDUSTRIAL
-  BUSINESS INDUSTRIAL PARK
-  PUBLIC QUASI PUBLIC
-  RECREATION PARKS
-  OPEN SPACE
-  AGRICULTURE
-  URBAN LIMIT LINE

UCL TUBER 11/91

CITY OF WINTERS



0 1 2 3 4 5 6 7 8 9 10 MILES

II. DESCRIPTION OF THE PROJECT

The total number of additional dwelling units projected in Alternative II would provide for higher densities, or somewhat smaller lot sizes, in the south-central area of the city, between Niemann Street and Grant Avenue, and provides for some areas designated as Rural Residential (60 percent of the area designated as such in the proposed land use map). Alternative II indicates the potential for differences in impacts resulting from a pattern of designations providing moderately increased densities.

2. Land Use

The Land Use section is organized around six main goals, which are stated as follows:

- A** To provide for orderly, well-planned, and balanced growth consistent with the limits imposed by the city's infrastructure and the city's ability to assimilate new growth.
- B** To promote the development of a pedestrian-oriented central business district that includes retail commercial, office, residential, civic, cultural and recreational uses.
- C** To designate adequate land in a range of residential densities to address the housing needs of all income groups expected to reside in Winters.
- D** To designate adequate land for and promoting the development of commercial uses providing goods and services to Winters' residents, employees and visitors.
- E** To designate adequate land for and promote development of industrial uses that create jobs and enhance the economy of Winters.
- F** To designate adequate land for development of public and quasi-public uses to support existing and new residential, commercial, and industrial land uses.

The policies associated with these Goals will be described in further detail in Chapter III, below. A broad range of objectives and criteria are specified in 33 policies for the City to utilize during the lifetime of the General Plan. Land use objectives include designating adequate land to accommodate a population of 12,500 persons by the year 2010, and for the commercial, industrial, public and semi-public needs of such a population. This population is to be located within an Urban Limit Line (ULL), while an Urban Study Area outside and adjacent to the ULL (surrounding the City wastewater treatment plant), to the northwest, is to be considered for future incorporation into the ULL. An overall residential mixture of 75 percent single family homes and 25 percent multiple family units is established as an objective, with higher densities located along arterial routes and close to shopping and other urban services.

Development and revitalization of the downtown area is encouraged, with ground floors used for retail, and upper floors for offices and residences. Priority is given to pedestrian access throughout the city, with special emphasis on the downtown area. New development is to be considered in context of the need to maintain a positive fiscal balance for the City, to promote jobs, avoid

II. DESCRIPTION OF THE PROJECT

environmental hazards, increase the proportion of expenditures by local residents at local businesses and services, and by so doing increase local government revenues.

The Implementation program of the Land Use section calls on the City to propose that the Yolo County Local Agency Formation Commission (LAFCO) adopt a revised sphere of influence (SOI). The Zoning Ordinance is to be revised as necessary to ensure consistency with the General Plan designations, including the creation of new zoning districts. The zoning ordinance will be subject to separate CEQA review. Programs are proposed for monitoring the rate of development in the city, and the fiscal status of the city as related to General Plan implementation. Other plans and studies that are to be completed include a Central Business District Plan, an economic development plan, and a facility-needs study for Winters' fire and police services.

3. Housing

The Housing section contains extensive and detailed policies intended to serve the purposes of the five main Goals for housing in Winters, and separately, describes the various implementation programs which will carry out those policies. A table of quantified objectives for new housing construction, rehabilitation and conservation, according to different income levels, is also provided, as required by state planning law. The five Goals are stated as follows:

- A To designate adequate land for a balanced range of housing types and densities for all economic segments of the community.
- B To encourage the maintenance, improvement, and rehabilitation of the city's existing housing stock and residential neighborhoods.
- C To encourage energy efficiency in both new and existing housing.
- D To ensure the provision of adequate services to support existing and future residential development.
- E To promote equal opportunity to secure safe, sanitary, and affordable housing for all members of the community regardless of race, religion, sex, marital status, national origin, or color.

The Housing Policies define the general objectives for the City to accomplish the above Goals, and incorporate state-mandated policies to achieve state and regional housing goals. These include, for example, meeting the city's regional housing share, the provision of a 25 percent density bonus for residential development projects which incorporate low- and moderate-income or senior housing, encouraging second units on existing lots. The City will seek out all opportunities to use federal and state monies for the promotion of affordable housing, rehabilitating older homes, and upgrading residential infrastructure. The Policies also express an intention to balance

II. DESCRIPTION OF THE PROJECT

the need to keep housing and land costs down with ensuring the highest quality of residential development. Further description and analysis of the Housing Policies is provided in Chapter III, Planning and Policy Context.

The Implementation Programs defined in the Housing section of the Draft General Plan include 13 actions that the City will initiate over a six-year period, ending June 30, 1997, under the direction of the Housing Goals and Policies. Each program is defined in terms of the responsibility and time frame for initiation, and the number of units targeted by the program. The programs include a revision of the zoning ordinance to provide for density bonuses, preserving affordable housing units, permitting second units, mobile homes, and duplexes and halfplexes on corner lots in single family zone districts. Programs for use of state and federal funding are defined, as well as for coordination with Yolo County on administration of the Section 8 rental assistance program, and the use of mortgage revenue bonds as a technique for developing affordable housing units for rent and for sale.

The Housing section establishes the City's quantified objectives for new construction in each of four income categories, and for rehabilitation and conservation of low-income housing units. The objectives have been set in accordance with the Winters' housing needs determinations defined by the Sacramento Area Council of Governments (SACOG), the agency responsible for regional planning in Yolo and Sacramento Counties.

4. Transportation and Circulation

The Transportation and Circulation section consists of seven Goals and 29 Policies, and is directly related to the Circulation Diagrams and Standards provided in the first part of the General Plan. The Goals are stated as follows:

- A To create and maintain a roadway network that will ensure the safe and efficient movement of people and goods throughout the city.
- B To promote and maintain public and private transit systems that are responsive to the needs of Winters residents.
- C To promote increased efficiency in automobile use.
- D To consider air quality and noise impacts along with traffic flow efficiency when making decisions about improvements to existing roadways or construction of new roadways.
- E To promote intergovernmental communication and cooperation concerning transportation-related issues.
- F To ensure the adequate provision of both on- and off-street parking.

II. DESCRIPTION OF THE PROJECT

- G** To promote pedestrian and bicycle travel as alternatives to automobile use.

The Policies specify criteria for the construction of new roadways and improvement of existing roadways, requirements for new development, and ways to coordinate with other public agencies to increase the efficiency of the circulation system in both Winters and the surrounding region. The Policies promote development that includes alleys and a grid street pattern, to maintain development continuity with the existing, traditional grid pattern in the center of the city. Specified projects include the restoration of the Railroad Avenue bridge and the railroad bridge itself as historic features and the establishment of a park and ride facility. A feasibility study will be initiated for a new roadway bridge crossing of Putah Creek between Railroad Street and I-505, the construction of which will be addressed in a separate, subsequent CEQA review document. A pedestrian and off-street bicycle pathway system is to be established, that serves both shopping areas and open space or recreation areas. On-street bicycle lanes are also required where possible, with bike parking facilities, and route connections to a regional bikeway system. Compliance with the Yolo County Congestion Management Plan (CMP), through a trip-reduction ordinance and other measures, is also specified. Further description of the Transportation and Circulation Policies and Programs, and their potential environmental impact, is contained in Chapter IV, Transportation and Circulation.

Implementation Programs in this section include the preparation and periodic updating of a Circulation Master Plan, monitoring of traffic conditions, studies for the new bridge, updating parking standards in the Zoning Ordinance, and revising traffic impact fees.

5. Public Facilities and Services

The Public Facilities and Services section of the Plan defines nine Goals, as follows:

- A** To maintain an adequate level of service in the Winters' public facilities and services to meet the needs of existing and future development.
- B** To maintain an adequate level of service in the City's water system to meet the needs of existing and future development.
- C** To maintain an adequate level of service in the City's sewage collection and disposal system to meet the needs of existing and future development.
- D** To maintain an adequate level of service in the City's storm drainage system to accommodate runoff from existing and future development.
- E** To provide for the collection and disposal of solid waste while minimizing the generation of waste.

II. DESCRIPTION OF THE PROJECT

- F** To ensure that an adequate level of police service is maintained as new development occurs.
- G** To ensure that an adequate level of fire protection service is maintained as new development occurs.
- H** To maintain the highest possible level of educational services for all Winters' residents.
- I** To promote efficiency, convenience, and harmonious relationships in the siting of public facilities.

The Public Facilities and Services section lists 41 Policies intended to set objectives, procedures and criteria for the City in achieving the above Goals. The primary principles for developing public facilities are to maintain appropriate service levels in each category, to obtain a fair share of the funding costs of facilities from each private development project that benefits from those facilities, and to manage and maintain existing facilities in a beneficial and efficient manner. In the particular area of water supply, some policies are defined for promoting conservation and greater efficiency in water use by residents. Other policies require programs for recycling and waste reduction by residents, in order to meet specific reduction objectives of 25 percent by 1995 and 50 percent by 2000. Standards are also set for police and fire emergency response times at, respectively, three and five minutes. The water, sewer, and storm drainage aspects of the Public Facilities and Services section, together with the related Master Plans for these facilities, will be described and evaluated in detail in Chapter V, Public Infrastructure. Other public services considered in this section of the General Plan, such as fire and police protection, educational facilities and solid waste disposal, will be further examined in Chapter VI, Other Public Services.

Improvements in the management of public facilities include: pursuing the acquisition of surface water rights; replacing deteriorating water, sewer and storm drain pipes; testing fire hydrants; instituting a new telemetry system for monitoring and managing the water supply system; promoting the use of treated sewage effluent for irrigation needs; requiring water meters on all new hook-ups and possibly on existing hook-ups; initiating a feasibility study for rebuilding the Winters Dam on Putah Creek to promote groundwater recharge; converting the existing middle school to an elementary school; modifying the existing agriculture education facility by buffering from the surrounding residential areas; and phasing out the use of the existing high school facility while using it as a source of construction revenue for the new school.

Specific new facilities which are planned include new wells; extending water, sewer and storm drain pipes to new development areas; a new sewage treatment plant north of the city; development of a stormwater detention facility also serving as a recreational lake within the urban development area just north of the existing city; a Northern Stormwater Detention Pond adjacent to Interstate Highway 505; construction of a new middle school; and a new high school facility. The new treatment plant will require subsequent environmental review pursuant to CEQA.

II. DESCRIPTION OF THE PROJECT

The Implementation Programs of the Public Facilities and Services section specify that the City will adopt and periodically revise Level of Service Plans for public facilities, including, but not limited to, roadway, water, sewer, and drainage systems, and schools, libraries, and police and fire protection facilities. System Master Plans for transportation, water, sewer and storm drainage are to be adopted and updated periodically to reflect land use development occurring that is consistent with the General Plan. Development fees are to be annually reviewed, and adjusted as necessary, and a long-term Capital Improvement Program (CIP) is proposed for the overall financing and scheduling of the proposed improvements. Various specific programs concern: initiating the acquisition of specific surface water rights; institution of meters on existing water hook-ups; an ordinance on undergrounding of utility lines; and preparation of a Source Reduction and Recycling Element for submittal to Yolo County.

6. Recreational and Cultural Resources

The Recreational and Cultural Resources section states a total of five Goals, as follows:

- A To establish and maintain a public park system and recreation facilities suited to the needs of Winters residents and visitors.
- B To promote the provision of private recreational facilities and opportunities.
- C To establish recreation programs suited to the broad needs and interests of all Winters residents.
- D To preserve and enhance Winters' historical heritage.
- E To protect Winters' Native American heritage.

The Recreational and Cultural Resources section incorporates 32 Policies defining the City's objectives and criteria for the development of parks, recreation and cultural preservation. The policies set a city-wide standard of five acres of developed parkland per 1,000 residents, and require new development to contribute land or appropriate fees to meeting that standard. Funding for parkland acquisition will also be sought from state and federal sources. According to the section, the City will pursue the development of: neighborhood parks; a roughly 20-acre community park adjoining the new high school site with a swimming pool, gymnasium, and tennis and basketball courts; an approximately 30-acre community park with lighted baseball and soccer fields; improvements for swimming, picnicking and an interpretative center at Putah Creek near the existing Community Center, along with centers targeted to teens, seniors and cultural activities at the Community Center; a park, interpretive center or tourist information center between Highway 128 and Putah Creek near Valley Oak Drive; a city-wide network of pedestrian, bicycle and

II. DESCRIPTION OF THE PROJECT

equestrian trails linking open spaces, schools, shopping, civic and employment centers; an equestrian facility; reconstruction of the Putah Creek railroad trestle as a bicycle/pedestrian bridge; and passive recreational uses around the central detention pond. The City will require developers in the northern area of the City to develop a municipal, championship-rated golf course, dedicated to the City and incorporating the lands which are currently (and will continue to be) used as spray fields for treated wastewater effluent.

In the process of developing and managing recreational resources, the City will promote: close proximity and joint use of school and park facilities; buffering of new high-activity-level parks from residential areas; use of open space as a buffer between incompatible land uses; use of drought resistant plants and landscaping; compatible private recreational facilities; and resident involvement in park planning, including those with special needs such as the elderly or physically disabled.

The cultural resources of the city are to be protected and enhanced through the development of guidelines for preservation of historic buildings and suitable infill development on adjacent lots, assistance with registering historic buildings as state or national sites, and encouraging relocation of valued structures when removal is necessary. The restoration of the Railroad Avenue Bridge is to be explored. Policies are also provided to protect against destruction of Native American archaeological sites.

Implementation Programs of the Recreational and Cultural Resources section specify that the City will prepare, adopt and periodically update a Parks Master Plan, which will include the following park standards: Mini-Parks (1/2 to 3 acres); Neighborhood Parks (3 to 5 acres); and Community Parks (20 to 30 acres). Other programs require the City to pursue park acquisition funds, maintain joint-use agreements with the Winters Joint Unified School District, and to adopt the State Historical Building Code.

7. Natural Resources

The Natural Resources section contains five Goals, as follows:

- A To protect water quality in Putah Creek, Dry Creek, and the area's groundwater.
- B To promote the continued productivity of agricultural land surrounding Winters and to prevent the premature conversion of agricultural land to urban uses.
- C To protect sensitive native vegetation and wildlife communities and habitat.

II. DESCRIPTION OF THE PROJECT

- D To promote the protection and enhancement of the riparian and aquatic ecosystem of Putah Creek and Dry Creek.
- E To promote and, to the extent possible, improve air quality in Winters and the region.

The Natural Resources section contains a total of 35 Policies, of which between six and nine Policies are incorporated into each of the above Goals. Typical of the policies in the Draft General Plan, they consist of objectives and standards for the characteristics of new urban development, means of managing existing conditions and resources, and identification of some specific projects. With regard to water quality, new development is to be reviewed with regard to its potential for adverse effects on groundwater, and construction grading is to be strictly controlled to minimize sediment runoff into Putah and Dry Creeks. The City will seek the elimination of existing septic tanks, monitor the water quality of water wells, and will cooperate with appropriate county, state and federal agencies to reduce runoff of toxic agricultural chemicals into waterways in the area.

The continuation of existing agricultural activity on land designated for urban development is to be supported until such development is imminent, and other aspects of the agricultural life of the community are to be sustained with farmers' markets, on-site produce sales and appropriate special events. The City will support tax and other economic incentives for agricultural activities, and adopt a right-to-farm ordinance.

A major focus of the Draft General Plan's Policies for protection of native vegetation and wildlife around the city and along the creeks is to be achieved by the creation of an Open Space Preserve north of Grant Avenue centered between I-505 and Railroad Avenue, also serving as a component of the City's drainage and wastewater treatment systems. Besides providing a possible site for wetlands habitat, the Preserve will serve for groundwater recharge, passive recreational uses and educational objectives. The cost of developing and maintaining this Preserve would be borne partly through the collection of fees from development which cannot provide on-site mitigation of impacts on wetlands or riparian habitats, as payments in-lieu of on-site dedications and wetlands maintenance. In addition to the Preserve, the City will require: site surveys of land proposed for development; setbacks of development from the edges of Putah and Dry Creeks; general avoidance of sensitive areas; a 1:1 replacement requirement for unavoidable losses of habitat; participation of the City in local and regional programs to preserve or restore habitats of endangered plant and animal species; encouraging the use of native plant materials in landscaping; encouraging native vegetation and wildlife habitats within parks and open space areas, and adjacent to the central detention pond, where feasible; and a program for habitat management and restoration along the Creeks.

II. DESCRIPTION OF THE PROJECT

Policies to protect the air quality of Winters and the region include: cooperation with the Yolo County Air Pollution Control District (APCD) to attain and maintain state and federal air quality standards; coordination with the APCD to review proposed industrial sources of air pollution; use of the California Environmental Quality Act (CEQA) process to identify, avoid or mitigate significant air quality impacts of new development; promotion of employment opportunities in Winters as a means of reducing the numbers of persons commuting to outside areas; and designing intersections to avoid long vehicle delays and resulting carbon dioxide "hot spots."

The Natural Resources Implementation Programs would continue the monitoring of groundwater quality, and would initiate: adoption of the right-to-farm ordinance; monitoring of the strategies used by various organizations to protect agricultural lands from premature urbanization; the preparation and adoption of a landscape ordinance to encourage native plant materials, drought-resistant plants and a range of water conservation measures; a design study for the Wetlands Preserve; a Putah and Dry Creek habitat management program; and cooperation with Yolo and Solano Counties and the Putah Creek Council to establish guidelines for erosion control along Putah Creek.

8. Health and Safety

The Health and Safety Section is based on six main Goals, as follows:

- A To prevent loss of life, injury, and property damage due to geologic and seismic hazards.
- B To prevent loss of life, injury, and property damage due to flooding.
- C To prevent loss of life, injury, and property damage due to wildland and structural fires, explosions and release of hazardous materials.
- D To ensure that city emergency response procedures are adequate in the event of natural or man-made disasters.
- E To protect city residents from the harmful and undesirable effects of excessive noise.
- F To prevent crime and promote the protection of people and property.

A total of 32 Health and Safety Policies address the various categories of potential hazards, as outlined above. Policies on seismic safety require geotechnical reports and appropriate mitigation where necessary for new structures, use of state construction standards for underground water and gas lines, and abatement of structural hazards (e.g., unreinforced masonry) in existing buildings. Potential flooding hazards are to be avoided by policies which continue City participation in the National Flood Insurance Program, require construction of drainage improvements, including a Northern Stormwater Detention Pond and Putah Creek outfall, and special management of grading projects conducted during the rainy season to avoid siltation in drainage facilities. In ad-

II. DESCRIPTION OF THE PROJECT

dition, policies require new development to be built above the 100-year flood level, and during major improvements, existing structures are to be raised above the flood level.

Fire Protection Policies set standards for new development, such as fire flow requirements, hydrant spacing, roadway clearances, and built-in fire suppression equipment. An Emergency Response Plan, coordinated with similar state and county plans, and identifying emergency access routes, is to be adopted by the City, and updated and tested for effectiveness. Mutual aid agreements with surrounding jurisdictions for emergency assistance will be maintained. Policies providing for neighborhood crime prevention programs and site planning with considerations for security and surveillance are also included.

Noise-related Policies include standards for acoustic insulation, identification of compatible land uses, requirements for noise studies and performance standards.

Implementation Programs of the Health and Safety Section are concerned with adopting the most current editions of the Uniform Building Codes and related Codes, adopting a structural hazard abatement ordinance, annual Fire Protection District inspection of commercial and industrial buildings, testing emergency response procedures, and revising the Zoning Ordinance in relation to the noise policies.

9. Community Design

The physical appearance and character of Winters is addressed in the Community Design Section, which contains the following four Goals:

- A To promote the development of a coherent and distinctive physical form and structure that reflects Winters' small-town qualities and agricultural heritage.
- B To create a well-defined, pedestrian-oriented downtown which serves as the center of Winters' commercial, civic and cultural life.
- C To preserve existing community character and fabric and promote the development of neighborhoods and districts that emphasize pedestrian convenience.
- D To maintain and enhance the quality of the Winters' landscape and streetscape.

The Community Design Policies emphasize neighborhood preservation and a positive pedestrian environment, particularly in the downtown, where a greater concentration of urban uses, including residential uses, is to be encouraged. New downtown development is to be planned for direct access from the sidewalk, with parking located behind buildings and out of view from the street. The City will initiate design improvements for the visual quality of the downtown. The agricultural and small town heritage would be maintained by a distinct agricultural character at the ur-

II. DESCRIPTION OF THE PROJECT

ban edge, and by encouraging new residential development to use the existing grid street pattern as a model.

Design guidelines will be prepared for Highway 128 on the basis of its designation as a Scenic Highway by the County. Streets and bikeways are to serve as the basic structure for connecting and defining neighborhoods and districts, and select streets will be reinforced as boulevards with street trees. New trees will be required in all new development, as defined by a City Street Tree Plan and Standards ordinance, preservation of existing orchards will be encouraged, and a mechanism for maintenance of existing street trees will be adopted as a requirement for new major development projects. The Implementation Programs of the Community Design Section require the city to complete preparation and adoption of design guidelines for Highway 128, and the Street Tree Plan and Standards.

10. Administration and Implementation

The Administration and Implementation Section is based on one Goal: "To provide for the ongoing administration and implementation of the General Plan." The five Policies listed in this Section, and its Implementation Program, require the City to review the General Plan on an annual basis and revise it as needed, with no more than four Amendments per year. The annual review is also intended to serve as the basis for the mitigation monitoring program required by state law (AB 3180; Public Resources Code 2108.6). A major review of both the Policy Document and Background Report is to be conducted every five years for possible revision. The Zoning and Subdivision Ordinances, and the Capital Improvements Program are to be reviewed and revised as necessary to maintain consistency with the General Plan.

11. Circulation, Water, Drainage and Sewer Master Plans

Infrastructure improvements as defined by the General Plan are essential elements in the implementation of the Plan, and are necessary to overcome a variety of obstacles to growth and development in Winters. Though each of these Master Plans will be described and evaluated in detail in subsequent, related chapters of this Draft EIR, the major proposals of each are described below.

a. Circulation Master Plan

The Circulation Master Plan, prepared by Wilbur Smith Associates, dated October 21, 1991, consists of an evaluation of circulation needs and recommendations for a future roadway system based on an advanced computer traffic model (MINUTP). The document addresses both the Draft General Plan (the Project) and the Modified Draft General Plan (Alternative II). One additional land use configuration, or variation, for Alternative II was evaluated, in which moderately

II. DESCRIPTION OF THE PROJECT

higher density residential designations were assigned to the area north of Niemann Street. The Plan also provides analysis of projected conditions with the potential construction of a new bridge over Putah Creek as an extension of Johnson Road, both as a supplement to, and as a substitute for the Railroad Avenue bridge. The Johnson Road bridge and land use variation (the density shift) on the traffic model function as means for investigating the potential traffic implications of these hypothetical conditions, and do not represent major alternatives to the Draft General Plan and its Circulation Plan Diagram.

The Master Plan considers factors in the circulation system such as through traffic on Grant Avenue (State Highway 128) which links I-505 with Lake Berryessa (a regional recreational area), public transit, parking in the downtown area, commuting patterns of Winters' residents, and traffic likely to be generated by the different land use designations proposed in the Draft General Plan.

The recommended roadway improvements include the following items:

- | | |
|----------------------------------|-----------------------------|
| ◆ Main Street Loop Road | ◆ Rebuild Railroad Avenue |
| ◆ Road 32A (Road 88 to 90) | Putah Creek bridge |
| ◆ Hemenway Street Extension | ◆ Rebuild Taylor Street |
| ◆ Road 33 Extension (to Road 90) | ◆ Widen East Street |
| ◆ Valley Oak Drive Extension | ◆ Widen Grant Avenue |
| ◆ Rebuild Putah Creek bridge | ◆ Widen Grant Avenue/I-505 |
| (Railroad Ave.) | Overcrossing |
| ◆ Rebuild Anderson Ave. | ◆ Widen Road 33 West of |
| ◆ Rebuild Grant Avenue | Railroad Avenue |
| Dry Creek Bridge | ◆ Construct new Putah Creek |
| ◆ New traffic signals (6) | bridge |

The new Putah Creek/Johnson Road bridge is a recommended element of the Circulation Plan, but is not an adopted feature of the Draft General Plan.

b. Water Master Plan

The Draft Water Master Plan, dated October 21, 1991 and prepared by CH2M Hill, recommends one of three alternatives, chosen on the basis of its advantages of a small number of mechanical components, increased operating and fireflow pressure, two less wells than another alternative, and compatibility with the introduction of a surface water supply.

- ◆ A program of replacing 30 to 100 year old water lines;
- ◆ Backup generators at all wells.

II. DESCRIPTION OF THE PROJECT

- ◆ Examination of the operating effectiveness of the downtown area fire hydrants and valves, and upgrading as needed.
- ◆ Establishment of specific pipeline standards for strength and corrosion resistance.
- ◆ Acquisition of surface water rights from the proposed extension of the Tehama-Colusa Canal.
- ◆ Upgrading Well No. 1 for interim use and replacing it for future needs.
- ◆ Drill four new wells, and equip with variable frequency drives.
- ◆ Install new pumps and variable frequency drives on existing wells, and remove in-line check valves.
- ◆ Remove the two existing elevated water towers.
- ◆ Installing water meters on all new connections.
- ◆ Establish a new telemetry system for monitoring, controlling and record keeping of wells and tanks.
- ◆ Add two new fire hydrants in existing system.
- ◆ Installation of future water mains as defined by the Water System Master Plan diagram (see Chapter V, Infrastructure Considerations).

A water conservation program is incorporated into the Draft Water Master Plan as the Urban Water Management Plan. The Plan document, prepared by CH2M Hill, Inc., dated September 1991, evaluated three alternative programs, identified as "Moderate," "Aggressive," and "Maximum," ranging respectively from programs with the least cost and disruption of lifestyle, to the most expensive program with the greatest water savings. On the basis of comparing the costs of each alternative, their potential water savings, and their projected performance over time, the Moderate program is recommended for adoption at the earliest possible time. Though all the programs have high initial costs, the Moderate program is expected to result in the same long-term cost savings, particularly against the high cost of developing and/or acquiring surface water rights. A review of water usage over a five-year period is to be conducted, after which measures identified within the Aggressive and Maximum programs may be implemented as needed.

The Moderate program consists of the following measures:

- ◆ A low-flow plumbing ordinance for new construction.
- ◆ A program to retrofit older plumbing fixtures as they wear out with low-flow fixtures.
- ◆ An alternate day outdoor watering schedule.
- ◆ Public education and a "water waster" ordinance.
- ◆ Meter installation on all new construction.
- ◆ Retrofitting existing structures with meters in conjunction with replacement of water mains.

The Aggressive program would supplement the above measures with:

- ◆ Plumbing retrofits and water audits of selected homes and businesses.
- ◆ Adoption of a landscape ordinance for multiple-family housing and businesses.
- ◆ Expanded public education and a "bounty" program for reporting water wasters.

The Maximum program expands the above programs with the following measures:

II. DESCRIPTION OF THE PROJECT

- ◆ A landscape ordinance for all new construction.
- ◆ Implementation of an inverted block rate structure and seasonal water pricing, assuming meters are in place throughout the city, to establish financial disincentives for excessive water consumption.

c. *Storm Drainage Master Plan*

The Storm Drainage Master Plan serves both as a regional flood control project, and for drainage from new development which is defined within the Winters General Plan (defined as on-site e). Three alternatives are defined in the Draft Storm Water Drainage Master Plan, dated October 21, 1991, prepared by CH2M Hill, Inc. (dated September 1991), of which No. 3 was selected as having no significant effect on upstream or downstream interests (specific areas affected would be acquired by the City), or increasing flows in Moody and Chickahominy Sloughs east of I-505. The recommended alternative, however, does not reduce or alleviate flooding which occurs on land north of the City's Sphere of Influence. Approval of the Master Plan would require direct coordination with the Yolo County Flood Control and Water Conservation District, and a sequence of approvals by the Federal Emergency Management Administration (FEMA), the U.S. Army Corps of Engineers, and the U.S. Department of Fish and Game, as well as preparation of an environmental impact report (as a Supplement or Addendum to this EIR) when a design plan has been defined. The major features of the Storm Drainage Master Plan are:

- ◆ Construction of the Winters Detention Pond, with an outfall to the Northern Stormwater Outfall.
- ◆ Construction of a Northern Stormwater Reservoir and outfall to Putah Creek.
- ◆ Relocation of Willow Canal.

d. *Sewer System Master Plan*

The Draft Sewer System Master Plan, dated October 21, 1991, and prepared by CH2M Hill, Inc., which recommends a combination of upgrades and repairs to the existing network, and new facilities and collection system extensions, summarized below:

- ◆ Repair and maintain existing collection system, with replacement of selected pipeline segments.
- ◆ Improvements to the East Street Pump Station with a pump, standby generator, new alarm system, removal of unused equipment and general site upgrade.
- ◆ Completion of erosion control measures on select pond banks.
- ◆ Replanting the spray irrigation reuse area with a permanent grass stand.
- ◆ Restoration of automatic irrigation system valves.
- ◆ Repair of a leak in Storage Pond. No. 3 and construction of new 40-acre-foot pond at existing site, and immediate establishment of a monitoring well field, with the approval of the Regional Water Quality Control Board.

II. DESCRIPTION OF THE PROJECT

- ◆ Construction of a new pump station near Railroad Avenue, with a force main to the new treatment facility.
- ◆ Phased construction of collection system as defined by the Sewer Master Plan diagram (see Chapter V, Infrastructure Considerations).
- ◆ Phased construction of a new wastewater treatment facility east of Railroad Avenue, north of the City's Sphere of Influence.

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The Draft General Plan addresses a total planning area of approximately 1,900 acres, all of which are within the twenty-year Sphere of Influence (SOI) boundaries adopted within or as a part of the existing General Plan, and which were last modified by the Yolo County Local Agency Formation Commission (LAFCO) in 1986. The existing incorporated city area includes approximately 1,050 acres, plus an additional 227 acres of non-contiguous city-owned and incorporated land northwest of the city, most of which is used for wastewater treatment and disposal. About 550 acres of the planning area are outside the city limits, and are currently subject to the Yolo County General Plan, which includes policies for expansion of urban areas.

This chapter primarily addresses the degree to which the proposed Draft General Plan introduces changes in land use, housing, and population which would have a direct, significantly adverse, negative impact on the community. Subsequent chapters address a wide range of impacts indirectly resulting from the proposed changes in land use, such as traffic congestion, demand for public services, air quality, noise and loss of agricultural land and habitat for endangered species. In each case, existing conditions are described as a baseline against which the changes resulting from the Project can be evaluated in terms of possible significant adverse effects in each topic area.

Secondarily, this chapter will describe the relevant policies of the Yolo County General Plan as the context in which the proposed expansion of the Winters' incorporated city area is to be considered.

A. SETTING

1. Land Use

The city of Winters is a relatively very small community, although it has a history dating back over one hundred years. It has an agriculturally-based economy, based heavily on orchards of fruits and nuts, as well as row crops, dryland farming and livestock grazing. Monticello Dam, which creates the large reservoir known as Lake Berryessa in the Vaca Mountains, is about ten miles west of the city along Highway 128. This lake is a regional recreation destination, and the city's location makes it a primary 'gateway' to the lake, and has enabled the development of some tourist businesses in Winters. On the east side of the city, Interstate 505 ("I-505") serves as a key link between Interstate 80, about ten miles to the south, and Interstate 5, about 23 miles to the north.

The city, named after one of its founders, was formed in 1875 where the railroad line in the western part of the Central Valley, the Vaca Valley Railroad, crossed Putah Creek along the align-

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ment of the existing Railroad Avenue. The town expanded from this point across the 80 acres which were originally granted for the town site on the north side of Putah Creek (Ref. 48, page VII-4). Putah Creek was established as the border between Yolo and Solano counties in this area, which has effectively prevented expansion of the city to the south. I-505, located about one mile east of Railroad Avenue, is a general barrier which would make expansion of the city beyond it to the east difficult, although the developed area of the city is currently about two-thirds of a mile from I-505. The Vaca Mountains, which would form a western barrier to urban expansion, are about five miles west of the city, over gentle, rolling hills. The area to the north of the city contains no natural physical or other types of barriers, although much of the area is within the 100-year flood plain. Infrastructure improvements proposed as part of the Project are intended to solve the area's drainage problems, and enable expansion of the city into this northern area.

Existing land use development in Winters is characterized primarily by low density residential development, a small central business district (CBD), and an older industrial area directly adjacent to the CBD, consisting of warehouses, storage silos, and loading equipment used for storing, processing and shipping agricultural products. The condition of the industrial area, which lacks well-developed infrastructure (including improvements such as street pavement, sidewalks, curbs and gutters), combined with some deterioration in the CBD area, has prompted the establishment of a Redevelopment Agency and program by the City.

The original central area of the city, south of Grant Avenue, and primarily west of the CBD, developed slowly from the 1880s through the 1940s. Major residential areas developed since World War II are on the north, between Grant Avenue and Niemann Street, and in the area east of Valley Oak Drive. More recent development has taken place west of Valley Oak Drive, at the western end of Niemann Street, (south of the Agricultural School), and on the north end of Walnut Lane (formerly Northeast Street). The periphery of the central area has developed at slower pace, due to the limited land area.

Since 1980, the City has annexed a total of about 488 acres, in accordance with its General Plan and with the Sphere of Influence (SOI) adopted in 1986 by the Yolo County LAFCO, including 197 acres utilized for the City's wastewater treatment plant and spreading fields. The second largest annexation consisted of 160 acres which are currently designated as Planned Industrial in the existing General Plan Land Use Map, but which are proposed in the Draft General Plan for a combination of non-industrial land uses. A total of about 142 acres were annexed during the 1980s which are designated for residential development, located in various parts of the city.

Each annexation must be approved by the Yolo County LAFCO, which regulates the creation, alteration and expansion of cities and other governmental districts, and among its purposes is the shaping of urban areas to discourage sprawl, while serving the needs of the community and the county as a whole. This is achieved primarily through the use of Sphere of Influence (SOI)

boundaries set by the LAFCO in coordination with the constituent cities in its jurisdiction. The boundaries of Winters' SOI are set in ten-year increments, and may be revised upon application by the City to the LAFCO. In 1986, a ten-year SOI was adopted by the Yolo County LAFCO for Winters through the year 1996, of which approximately 410 acres remain to be annexed by the City, and a twenty-year line was established which reserves approximately 140 acres of land for development until after 1996, in the northeast area of the city. The LAFCO cannot deny the City's application to annex these areas, although the LAFCO may review and comment on the application. While any proposed development or annexation which extends beyond the SOI may be denied on the basis of the LAFCO's authority, none of the area designated for future urban uses in the Draft General Plan are outside the SOI boundary.

2. Population Characteristics

The population of Winters in 1990 is estimated to be 4,639 persons (U.S. Census, preliminary results), an increase of almost 2,000 persons over the 1980 U.S. Census figure of 2,652. This growth can be stated as a 74.9 percent increase over the ten-year period, and is equivalent to an average compound increase of 5.7 percent per year. However, actual annual increases during the 1980s ranged from under a third of one percent from 1980-82, to 11.2 and 10.5 percent in 1983 and 1989, respectively (Ref. DGP Background Report, page III-2). Irregular annual growth rates are typical of small towns, as development of residential land uses cannot be sustained year after year, as they may be in larger cities. For a small town such as Winters, the development of 100 new dwelling units has far greater implications for the community than the same number of units developed in a city five or ten times Winters' size.

The growth rate in two other major cities in Yolo county has been slow in comparison to Winters. For example, Woodland added about 10,000 people during the period 1980 to 1990 (a ten-year increase of 31.6 percent), and at an average annual compound rate of 2.8 percent, more typical of the state-wide annual rate of 2.3 percent. Davis, which is dominated by the University of California campus, increased by about 2.5 percent per year, also adding about 10,000 persons to its 1980 population of approximately 36,840. The largest city in Yolo county, West Sacramento, experienced the most rapid growth rate, increasing by 165 percent over the ten-year period, or over ten percent per year on average, due primarily to its proximity to, and role as a bedroom community for, the metropolitan area of Sacramento. Woodland and Davis have a more limited role as bedroom communities, and growth in these communities is less interdependent with the Sacramento metropolitan area.

In contrast to Davis and Woodland, the city of Vacaville, located at the junction of I-505 and I-5, ten miles south of Winters, is a rapidly growing area which increased at an average annual rate of 5.1 percent during the 1980s. It experienced a population increase, of 28,000 persons, from about 43,400 in 1980 to about 71,400 in 1990 (U.S. Census, preliminary results). Many of Vacaville's

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residents commute to the San Francisco Bay area, as well as to the Davis and Sacramento areas, but new industrial and commercial development in the Vacaville area, and elsewhere in Solano county, has also occurred at a rapid rate, providing jobs for this area's population. The conditions of rapid growth in Vacaville will have a potentially critical effect on growth in Winters, as demand increases in Vacaville for housing with lower land costs, less local traffic congestion, a more rural or small-town lifestyle, and proximity to recreation areas, qualities which homebuyers would expect to find in Winters.

The Sacramento Area Council of Governments (SACOG), the agency which is engaged in regional planning for Sacramento, Yolo, Sutter, and Yuba Counties, and portions of Placer County, has projected that Winters will expand to a population of 14,000 persons by 2010, with a 67 percent increase by 2000, and another 80 percent from 2000 to 2010. This represents an average annual compound growth rate of about 5.3 percent in the first decade, increasing to about 6.0 percent in the second decade, from 2000 to 2010 (Ref. 48, page III-7, Table III-6). SACOG's projections incorporate considerations of past growth, as well as regional growth and economic conditions. They are also generally consistent with the Winters annual growth rate experienced in the 1980s of about 5.7 percent.

Winters, as a small town with a lower cost of living, is generally conducive to raising a family, which is confirmed by the city's relatively high ratio of persons per household, which at the end of 1990 was determined by the California Department of Finance (Ref. 8) to be an average of 3.087 persons per household. However, a review of the previous annual reports by the Department indicates that Winters' average is about 2.8 persons per household, only moderately higher than the overall Yolo county 1990 figure of 2.628 persons per household. If the higher figure in Winters (3.087) is sustained over several years, it would be important in its planning to assure a sufficient supply of larger homes, but at the present time, the higher figure does not appear to be a reliable indicator of persons per household. Projections by SACOG indicate that by 2010 the rate will decline to 2.73 persons per household.

The characteristics of Winters' population, such as age distribution, ethnic makeup, and types of households, using 1990 Census information, are described in detail in the General Plan Background Report (Ref. 48). The information shows that the population of Winters in comparison to other areas has many more persons under the age of 18, and many fewer in the 18-34 age group, while the number of persons over 35 is about typical for the county and the state. Persons of Spanish origin make up a very large minority group, totalling 40.2 percent of the population, while Asian and African-American groups respectively constitute only 1.9 and 0.3 percent of the Winters population. In all of Yolo county, Asians and African-Americans represent between five and seven times more of the total population (9.1 and 2.1 percent, respectively) than they do in Winters, while persons of Spanish-origin represent only about half (20.0 percent) of the total population (Ref. 48, page III-4, Table III-3). The strong family character of Winters is again con-

firmed by Census data showing that 40.4 percent of its population is married with children, as compared to 24.7 and 26.9 percent of the population of the county and the state, respectively. Most other categories of households, such as married couples without children and single persons with and without children, are typical of both the county and the state, although there are significantly fewer non-family households in Winters than in the county and state (Ref. 48, page III-5, Table III-4).

3. Housing

As of January 1, 1991, the California Department of Finance reported that Winters contained 1,608 housing units, and had a vacancy rate of 3.73 percent (Ref. 8). Winters has typically had a lower vacancy rate than Yolo county, and both have seen the rate decline from over 5 percent to between 3 and 4 percent in the past two years. Winters' vacancy rate has been as low as 1.89 percent at the beginning of 1990 (Ref. 48, page II-8, Table II-7). Ideally, according to the California Department of Housing and Community Development (HCD), the vacancy rate should be between four and five percent to provide a reasonable degree of consumer mobility and choice in type of housing accommodations.

At the beginning of 1990 (the last year for which data is available), about 76 percent of Winters' units were single family homes, 9 percent were in structures containing two to four dwelling units, 12 percent were in structures with five or more dwelling units, and the remainder were in individual mobile homes. Winters has a substantially higher rate of home ownership, with 67.7 percent of all units categorized as owner-occupied, compared to Yolo county (51.9 percent), and to California (55.6 percent).

The physical characteristics of Winters' housing supply, as of 1980 (comparable 1990 Census data are not available at this time), showed it to be generally much older than is typical of Yolo county or California, with 40 percent of Winters' housing stock built before 1940, compared to 12 percent in Yolo county and about 15 percent across the state. Only about 11 percent of Winters units in 1980 had been built in the preceding decade, while almost 32 percent of Yolo county's total units had been built during that time. As part of the redevelopment project in the central area of Winters (defined as the Winters Community Development Project Area) a windshield survey of housing conditions was conducted, and it found that of the 582 single family homes, and 80 multiple family structures, 21 buildings (19 single family residences) were unsafe and deteriorated beyond the point of economically feasible restoration. Another 107 structures (93 single family residences) were significantly deteriorated, but were determined to be economically feasible for rehabilitation. The largest group, 323 buildings (301 single family residences), were in sound condition but in real need of paint or minor repairs. The 662 buildings surveyed contain a total of 940 dwelling units, or a total of 42.3 percent of all the units in Winters. How-

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ever, they primarily represent the older units in Winters, and not the overall condition of homes in Winters.

Housing costs have increased rapidly in the San Francisco Bay Area, and to a somewhat lesser, but still substantial extent, in the Sacramento metropolitan area and along the I-80 corridor connecting Sacramento to the Bay Area. In Winters, according to the Northern Solano County Association of Realtors, the typical home price increased by almost 15 percent (\$129,000 to \$148,000) from October 1989 to October 1990. In August of 1990, prices of newly built homes in Winters have ranged between \$175,000 and \$205,000. Two-bedroom rental units were available at that time for between \$525 and \$550 per month, but most units advertised for rent were single family homes, most of which were offered for between \$750 and \$900 per month (Ref. 48, page II-12-3).

Statewide trends suggest continued high housing price inflation, which is accelerated by greater demand than supply. According to housing data from the U.S. Census, in Sacramento, the median home price in 1990 was \$133,950, and in Vacaville, it was \$147,900. In Fairfield and Vallejo, major cities along the I-80 corridor, but in closer proximity to the Bay Area, median home prices were \$139,900 and \$140,600, respectively. The highest median home price in Solano County was in Benicia, at \$202,500. Although it would appear that the median home price in Winters is about equal to that in Vacaville, more than in Fairfield, and considerably higher (\$14,000 more) than in Sacramento, the Winters figure is not from the U.S. Census, as is the data for Sacramento and the cities along the I-80 corridor. The equivalent data for Winters has not yet been released by the Bureau of the Census. Whether new homes in Winters could demand higher prices than in places such as Sacramento or Fairfield, because of its rural location or other factors, could have potentially far-reaching consequences for the development of the city.

As new employment-generating uses are developed in Fairfield, Vacaville, and other cities in this region of the Central Valley, the demand for housing will rise, and may outpace the ability of these cities to satisfy the demand, particularly for lower-priced homes, or for homes with preferred characteristics, such as large lot sizes, minimal traffic, or public services and amenities. To the extent that these cities cannot meet such standards, demand for housing in smaller, more distant cities such as Winters will rise, and potentially push housing prices higher. This condition has already developed to some extent, and contributed to the 15 percent increase in average home prices experienced in Winters from 1989 to 1990.

Housing affordability is typically defined as a function of the percentage of residents (both renters and homeowners) who are overpaying for housing, with overpayment defined as more than 25 percent of a household's income. Information provided by the U.S. Census indicates that 50.6 percent of the city's 296 lower income households were overpaying in 1980, of which 102

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were homeowners and 71 were renters (Ref. 48, page II-13, Table II-12). In Yolo County, and in the state of California, as of November 1989 only 25.4 percent of all households could afford the median-priced home, but which compares favorably to the Winters figure of 50.6 percent.

The Regional Housing Needs Plan (RHNP, Ref. 38) prepared by SACOG and adopted in June of 1990 defines the need for housing through the year 1996 in each of the communities and county areas within its jurisdiction. Housing needs are categorized by income groups based on the county's median household income (MHI), which was \$39,700 in 1990 (Ref 25a. page II-33). The housing needs defined for Winters as its "fair share" by the RHNP indicate a need for a total of 499 units to be built between January 1, 1989 and July 1, 1996, distributed as shown below.

<u>Income Category</u>	<u>Needed Increase</u>	<u>Percent</u>
Very Low Income (under 50 % of MHI):	113	22.6
Low Income (50 - 80 % of MHI)	87	17.4
Moderate Income (80 - 120 % of MHI)	107	21.4
Above Moderate Income (over 120% of MHI)	192	38.6
Total	499	100.0

(Source: Ref. 38, page 7)

Between January 1, 1989 and January 1, 1991, Winters approved the development of about 221 new dwelling units, including 143 detached single family homes during 1989, and 42 during 1990, according to SACOG estimates (Ref E). Single family homes are typically affordable only to moderate and above-moderate income households. Specific information on the affordability of these units is not available, but it is assumed that special housing programs will be necessary to satisfy the need for 200 dwelling units affordable to low income households (combined Very Low and Low Income groups) and that market conditions will only meet the housing needs of households with moderate or above moderate incomes. Therefore, it is assumed that none of the 129 dwelling units were affordable to low income households.

In addition to the needs of specific income groups, each city in California is required by the California Department of Housing and Community Development (HCD) to address the needs of special groups in its Housing Element (which is incorporated into the Project), such as the disabled, the elderly, farmworkers, and other groups. Data from the 1980 Census indicated that 9.9 percent of Winters work force population (age 16 to 64) had work disabilities of various kinds, but only 1.2 percent in that age group were categorized as disabled by the tabulation of transportation disabilities (conditions that prevent one from stepping up into a bus, for example). Of persons aged 65 and over (12.7 percent of the population in 1980), 9.2 percent (31 individuals) had transporta-

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tion disabilities. These persons usually need special architectural features in their homes in entries, doorways, kitchens and bathrooms (Ref. 48, pages II-16 to 17).

The proportion of senior citizens (age 60 and over) in Winters is moderately smaller than in Yolo county and in California, which may be attributable to the fact that there are no housing developments in the city specifically reserved for senior citizens (Ref. 48, page II-18), including group care facilities. Architectural features suggested for the disabled may be considered appropriate in planning for housing for the elderly.

As would be expected for a community with a high proportion of family households, family sizes in Winters are larger than is found in Yolo county or California. In 1990, 8.0 percent of occupied dwelling units in Winters had six or more residents, while comparable figures were only 4.2 percent in Yolo county and 7.0 percent for California as a whole (Ref. 48, page II-18).

Because of the agricultural basis of its economy, Yolo county has a large population of farm-workers, and of seasonal migrant workers, most of whom are housed in facilities located on or near their employers' farm fields. No current information is available on the numbers of Winters residents who are seasonal migrant workers (Ref. 48, page II-19). The Yolo County Housing Authority (YCHA) operates six public housing complexes, one of which is the El Rio Villa on Russell Boulevard (Highway 128) east of Winters on the opposite side of I-505. The complex is undergoing redevelopment and at completion of the current project, will contain 124 duplex and four-plex rental units. Approximately 90 percent of its residents are in migratory or other farm-related industries, and their rent is set at 30 percent of their income (Ref 48, page II-33).

Current U.S. Census data indicate that 7.4 percent of Winters' family households were headed by single females with one or more children under age 18. This type of family was described in the California Statewide Housing Plan (Phase I) as having low home ownership rates, low incomes, a high proportion of income spent for housing and commonly overcrowded conditions (Ref. 48, page II-19).

Although homeless persons are typically associated with highly urbanized areas, the Yolo County Social Services Department has estimated that in 1990 the county had 800 homeless persons in any given month, 460 of which were children. Shelters for the homeless and persons in need of transitional housing are operated by the Social Services Department and by Yolo Wayfarer Center, primarily in Davis and West Sacramento. The Wayfarers, a charitable organization, operates a shelter in Winters during cold weather months (November to March) which can accommodate up to 20 persons on a first-come, first-served basis, with no limit on continued nightly use of the shelter. In 1990, an average of 15 persons used the shelter on a nightly basis. The County Social Services Department maintains other types of transitional housing, can

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provide motel vouchers, and also has a staff person serving as a Homeless Coordinator to seek out solutions to the problems of the homeless (Ref. 48, pages II-20 to 21).

Under existing zoning and the General Plan, there is substantial land designated for residential development at a variety of densities. The City's development regulations, such as its zoning ordinance, building codes and permit fees are well-developed, and similar to those of other jurisdictions in the area, although Winters' fees are substantially lower than many other jurisdictions. Governmental constraints on the production of housing are therefore not considered to be significant (Ref. 48, page II-29). Market conditions are also favorable for housing production in Winters, because of the area's relatively inexpensive land, lower labor costs, and a well-developed regional transportation network to accommodate delivery of building materials (Ref. 48, page II-30).

The Housing Element of the existing General Plan, last revised in 1984, includes programs ranging from the pursuit of Federal and State funding for housing and housing rehabilitation to zoning ordinance amendments to accommodate mobile home parks, the development of procedures for persons to protest unfair housing practices, and the promotion of solar energy use and energy conservation. The City has had success in implementing many of these programs, and continues to pursue their implementation. The City has continued to seek out federal housing funds, has made referrals for housing assistance, promoted fair housing practices, and promoted solar energy and energy conservation (Ref. 48, pages II-35 to 37).

4. Yolo County General Plan

Approximately 550 acres of the Project planning area are unincorporated, and thereby currently subject to the regulations of the County of Yolo, and to the provisions of the Yolo County General Plan (YCGP), with regard to the expansion of urban areas. However, these areas have been established since 1986 as within the Sphere of Influence (SOI) established by the Yolo County LAFCO, and are fully anticipated to be annexed to the City of Winters over time. Although any individual policy of the YCGP could potentially be relevant to the Project area, the proposals for urban development and incorporation represented by the Project are primarily the concern of a relatively narrow band of policies in the YCGP directed towards land use and the conversion of agricultural land to incorporated urban uses. The YCGP addresses itself to both rural and urban uses, and to coordinating the interests and concerns of the component cities, towns and rural sections of the county.

The current YCGP was adopted by the Board of Supervisors on July 17, 1983. The YCGP Policies are derived from a broad list of Issues, Goals and Objectives. There are a number of Goals which are relevant to the urban expansion projected to occur with implementation of the proposed Project, which are listed below (Ref. 56, pages 8 & 9):

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- ◆ Protect prime and other agricultural land from urban development.
- ◆ Provide for industrial growth in the county to provide employment, services, and tax base while minimizing hazards and nuisances and while conserving resources and agricultural lands.
- ◆ Discourage urban sprawl.
- ◆ Continue to improve existing urban uses and place new urban uses in existing planned urban areas.

The YCGP contains numerous policies which are relevant to the proposed DGP, including the Land Use, Circulation, Open Space, Conservation, Scenic Highways and Recreation Elements. The EIR, however, is concerned primarily with the Land Use Element as the policy context for the proposed expansion of the Winters urban area into areas which are at present unincorporated. The effects of the EIR on circulation, open space and recreation, for example, are addressed in subsequent chapters of the EIR, on the basis of other policy and environmental criteria. The Land Use Element and other directly related policies are discussed below in a general summary fashion, and are referred to by the alpha-numeric coding system defined in the YCGP.

a. Land Use Policies [LU]:

LU 2

Promotes a balanced mix of land uses that: assures consistency with community values, reflects opportunities and constraints affecting land use identified in other elements of the General Plan, protects environmental quality and resources, supports efficient use of land, and restricts the extension of urban services into areas that represent non-contiguous growth. This policy also requires that new development be located according to the following priorities:

- | | | |
|--------|---|---|
| First | - | Renew and maintain existing urban areas. |
| Second | - | Develop vacant land within urban areas presently served by streets, water sewer, and other public services. |
| Third | - | Where necessary to develop outside existing developed urban areas, only develop land immediately adjacent to the existing urban developments. |
| Fourth | - | Prohibit urban development in agricultural areas. |

LU 5, 10

Strongly discourages new urban development that is non-contiguous to existing development, that cannot be assured of adequate public facilities and services, or in areas not designated for urban uses. Agricultural lands are to be further protected by limiting extensions of urban services.

LU 6, 7

Protects agricultural lands in areas presently farmed, with prime soils, and outside planned urban communities, and prohibits non-agricultural uses in agriculturally-designated areas.

LU 12

Subjects agriculturally-designated lands outside city limit lines but within urban area boundaries to the same land conservation standards, limitations and other requirements as agricultural lands outside urban area boundaries, except as modified by an adopted phased-development plan.

LU 15

Prohibits commercial and industrial development in areas designated for agricultural uses, except when individual activities are incidental or directly related to the agricultural use.

LU 14, 16, 17, 20, 21

Prohibits new residential or suburban subdivisions in agriculturally-designated areas, but permits or conditionally permits certain agriculturally-related residential uses in limited situations.

Additional Land Use Policies are provided that regulate urban development in unincorporated areas, and which therefore are not relevant to the proposals evaluated in this EIR.

b. Open Space Policies [OS]:

OS 1, 2, 3

Defines open space to include agricultural land, and specify that appropriate open space shall be preserved, and that agricultural land shall be preserved as the principal component of open space.

OS 4, 5

Restricts urban uses to urban areas as defined and mapped in the adopted General Plan and protects open space lands by limiting the extension of service facilities (especially sewers).

OS 6

Promotes the development of open space corridor plans for the establishment and maintenance of corridors along rivers, streams and utility easements, and mandates conformance of development to such plans when adopted by appropriate agencies.

OS 8

Provides that recreation, bikeways, trails, and other public areas shall be integrated with open space areas and scenic/river corridor plans.

OS 9

Links the preservation of scenic lands, waterways and riverbanks to the Scenic Highway Element, and promotes the interrelationship of that Element to open space.

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c. Conservation Policies [CON]:

CON 1, 2, 3

States that the county shall foster the conservation of land, and that land is to be treated by County plans and programs as a resource, not a commodity.

CON 6, 9, 10

Directs the County to plan and develop regulations for the protection of long term ecological values of natural resources, particularly scarce and unique resources.

CON 11, 12

Encourages the highest agricultural use and preservation of prime soils and prohibit non-agricultural uses outside Urban Area Boundaries.

d. Scenic Highways Policies [SCH]:

SCH 2

Establishes as the objective of the Element the identification of highway corridors with unique features, both urban and rural, and the development of amenities in those areas, such as bike, pedestrian and equestrian trails, scenic overlooks and small parks. The Scenic Highway System map is shown in **Figure 10**, which shows portions of the City of Winters as within the Highway 128 Scenic Corridor.

SCH 4

Defines the implementation measures for the Scenic Highway corridors, which serve jointly as measures for implementing the Open Space and Conservation Policies. These include Tree Preservation, Grading, Sign, Litter Control and Water Quality ordinances, management of construction and maintenance activities by County agencies, and additional emphasis to be placed on fire prevention programs within the corridor areas.

SCH 5, 7, 10, 11

Calls on the County to closely regulate land uses in order to protect of natural vegetation and land forms, and prohibit billboards, unscreened storage of commercial or industrial commodities, building materials, junk, and similar unsightly uses.

SCH 12

Provides for a bikeway to be developed within the Highway 128 scenic corridor.

- 1 STATE ROUTE 16-
Colusa County Line
to Copay
- 2 STATE HIGHWAY 128-
Winters to Lake Berryessa
- 3 SACRAMENTO RIVER ROUTE-
NORTH: County Roads 116, 16, 117-
Knights Landing to Elkhorn.
State Route 16-Elkhorn to Bryte
SOUTH: South River Road-
Barge Canal to Sutter Slough
- SCENIC HIGHWAY ROUTE
--- CORRIDOR BOUNDARY

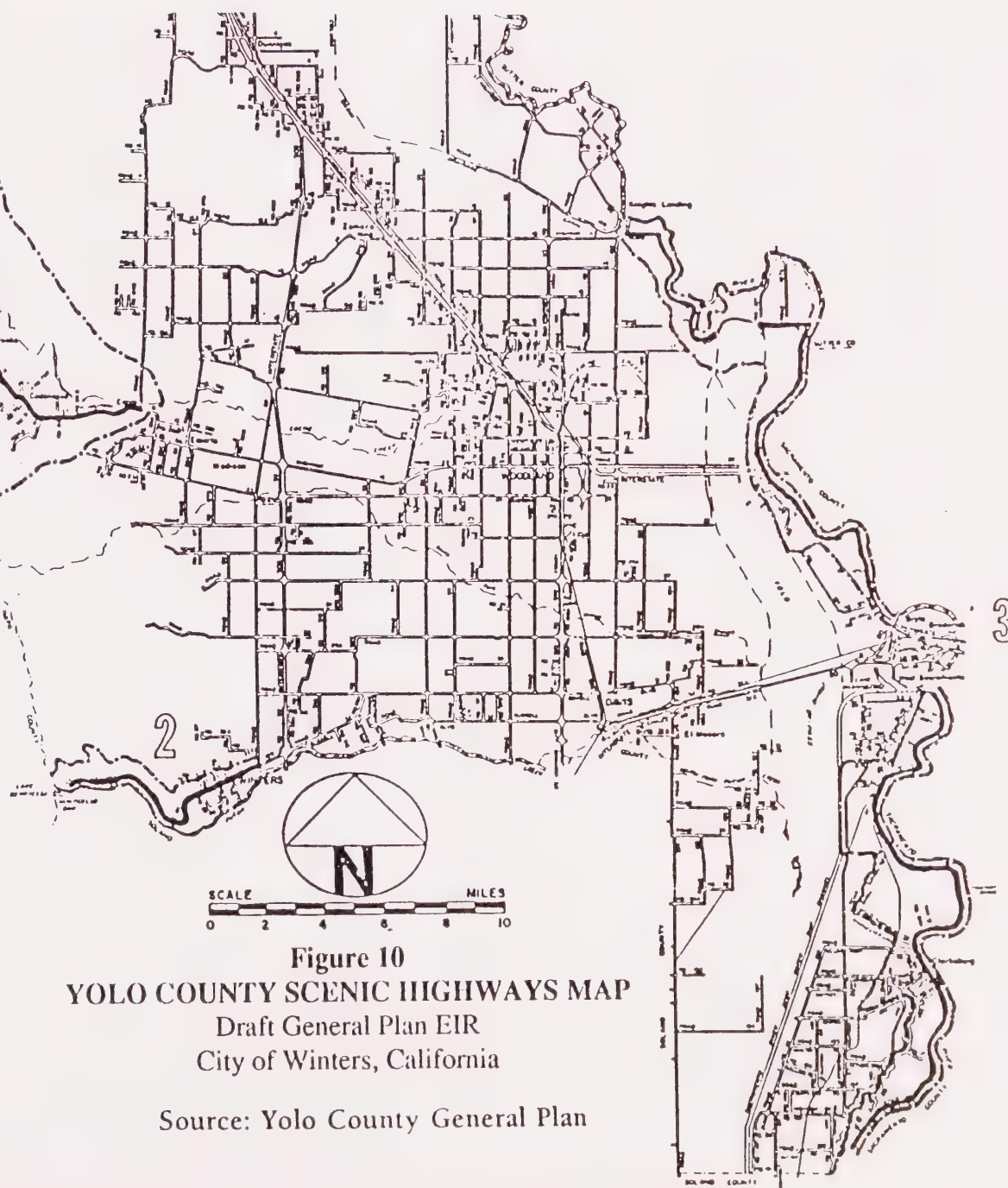


Figure 10
YOLO COUNTY SCENIC HIGHWAYS MAP
Draft General Plan EIR
City of Winters, California

Source: Yolo County General Plan

APPROVED BY THE YOLO COUNTY PLANNING COMMISSION ON MAY 21, 1974
ADOPTED BY THE YOLO COUNTY BOARD OF SUPERVISORS ON AUGUST 12, 1974
REDRAWN BY THE YOLO COUNTY COMMUNITY DEVELOPMENT AGENCY, APRIL, 1984

e. Administration Policies [AD]:

AD 6

States that Yolo County shall integrate by reference the General Area, Community Area and subject plans, including the Winters Urban Area.

AD 9

Provides for the County to control a number of physical and economic factors with the intent of controlling population growth and density, ranging from setbacks and open space requirements, to requirements for developers to provide certain services and facilities based on the intent of the YCGP.

AD 10, 11, 12

Requires that new urban development must obtain "will serve" statements from cities, utility and service districts prior to development, showing the ability of the agency or district to provide required new services, and the agency's satisfaction with the costs involved, funding sources and service levels anticipated by the beneficiaries of the services.

AD 15

Requires all urban uses to be placed within city limits in the urban service areas of Winters (and other cities in the county) or within urban service areas of unincorporated urban areas.

B. IMPACTS

The impacts of the proposed Draft General Plan on population growth, housing and certain aspects of land use in Winters are addressed in this section, together with the implications and impacts of the Project in relation to the policy provisions of the Yolo County General Plan.

The Draft General Plan is proposed as a comprehensive revision of the existing General Plan, and while many of the latter's goals and objectives are continued, many others are changed. The Elements of the existing General Plan have been regrouped in the Draft General Plan into different categories, and new Elements have been established, such as the Community Design Element. Land use controls and objectives may be changed as a result of the proposed new policies, but the focus of this chapter is on those proposed policies of the DGP which may stimulate land use development of a character that has physical environmental impacts. The physical character of development which would result from implementation of the existing General Plan is discussed in Chapter XV: Alternatives to the Project, in the section on the No-Project Alternative (Alternative IV). The basis for identification of impacts in an EIR, particularly an EIR on a gen-

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eral policy document such as the Draft General Plan, is the effect on the physical environment, rather than on a pre-existing policy framework.

The approach followed below in evaluating the environmental impacts of Alternative I (the DGP) and of Alternative II (14,000 population) consists of a brief recapitulation of the topic areas and issues summarized in the "Setting" section above, first, in terms of what may constitute a significant impact, and second, how the Project, in its physical implementation, may have negative impacts. Then the policies of the DGP are stated, in *italics*, in terms of the extent to which they reduce or avoid the impacts in each topic area, followed by a statement in **bold** type identifying the overall significance of the impact.

1. Land Use

a. Pattern of Development

Development which occurs in an irregular, discontinuous pattern, requiring the extension of services, such as water, sewer, schools or police/fire protection, to areas not adjacent to the city limits would result in significant, adverse impacts on the appearance and function of the community, as well as on the cost and efficient operation of these and other public services. Designation of land for urban development beyond the Sphere of Influence (SOI) recognized by the Yolo County LAFCO would constitute a significant, adverse impact, with respect to established policies on the extension of urban services and the provision of land for conversion to urban land use. However, a lack of available land for expansion of the community to meet housing needs (both locally and regionally), to expand commercial services, and to provide jobs in new industrial businesses, would also have a negative impact on the community and its ability to respond to valid demands for development.

The character of development in areas designated for urban uses by the Project could have potentially adverse impacts on the development pattern of the community unless growth is managed on a phased basis to occur in conjunction with the extension of infrastructure (e.g., roads, water supply, drainage and sewers), and provision of needed community facilities and services (e.g., schools, parks, and police and fire protection). Negative fiscal impacts could also result if residential or commercial development does not occur at the same pace as the extension and/or improvement of infrastructure and public services.

The DGP incorporates a policy (I.A.3) which requires specific plans and other major development proposals to guide growth in an orderly fashion, directly linked to the extension and provision of public services and infrastructure. The DGP would prevent the extension of urban development beyond the SOI on the basis of its policy (I.A.2) to establish an Urban Limit Line, and the

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implementation program (IP-I.1) for an application to the LAFCO to expand the SOI for potential long-term growth in the Urban Study Area in the later years of the DGP planning period.

The impact on the pattern of development would not be significant.

Alternative II, the Modified Draft General Plan, would not have different impacts from those of the proposed Project, because it incorporates identical policies for linking growth to the extension of infrastructure and provision of added public services and facilities. Though Alternative II represents a higher density of development in specific areas, permitting a higher rate of population growth, it would not allow growth to exceed the city's ability to provide the necessary improvements, nor would it require any variation in the physical pattern of the continuity of urban development.

b. Population Increase

A substantial increase in the rate of population growth due to the pace of development of residential land uses, sustained over a period of more than two or three years, in relation to available public services and infrastructure to serve the city's residents, could have a significant adverse impact on the quality of life in Winters. A sustained, higher rate of population increase than is anticipated by the DGP could possibly accelerate development exponentially, and make it very difficult for the City to meet the goals of the DGP for orderly, balanced growth consistent with the city's ability to provide and finance public facilities and services.

Among the objectives of the proposed DGP are the designation of sufficient land within the Planning Area for residential, commercial, industrial and other land uses, the definition of appropriate housing densities, and the provision of public services and facilities which will accommodate a population of about 12,500 persons by the year 2010 (Policy I.A.2). On the basis of the 1990 population figure of 4,639 (U.S. Census), this projected population is equivalent to an average annual growth rate of 5.1 percent, about one half percentage point less than the average annual growth rate experienced in the previous decade (5.5 percent).

A substantial increase in dwelling units in a single year, on the order of ten percent, for example, would not necessarily constitute a significant impact on the rate of population growth, unless in immediately prior or subsequent years the increase amounted to five percent or greater. In the event of an annual growth rate sustained over the twenty-year planning horizon of the Project of one full percentage point higher, or 6 percent, for example, the resulting population would total almost 14,900 in 2010, placing significantly greater requirements on public facilities and services than are presently anticipated in the proposed Draft General Plan. Demand for residential development in Winters could potentially result in a faster population growth rate, unless approval of new subdivisions is managed on a phased basis.

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The Land Use Diagram has designated a total of about 606 vacant acres for residential uses, at densities ranging from one unit per acre to 20 units per acre. On the basis of assumed actual densities (see **Figure 7** in Chapter II), this land area is projected to result in the development of approximately 3,020 dwelling units. Varying ratios of persons per household (pph) are utilized depending upon the density, as follows: 2.8 pph for residential areas of less than five units per acre (the combined categories of Rural Residential, Low, and Medium Density Residential); 2.3 pph for areas with between five and ten units per acre (Medium High Density Residential category); and 2.0 pph for dwelling units developed at between ten and twenty units per acre (High Density Residential). According to the density formula, 1,991 new dwelling units are projected to be developed at densities of less than five units per acre, which would accommodate a total of about 5,575 persons. In the next higher density range, 601 new units are projected to be developed, with an anticipated population of 1,382 persons. A total of 428 new dwelling units in the highest density range is expected to accommodate 856 persons, which combined with the other categories, would enable the population of Winters to increase by a total of 7,813 persons. Added to the 1990 population of 4,639, the overall projected population at buildout of the proposed Draft General Plan is 12,452, or very close to the goal of 12,500.

The DGP also provides that new dwelling units as a component of commercial development in the Neighborhood Commercial, Office, and Central Business District land use designations may be approved on a discretionary basis. Approximately 73 acres have been designated for new development in these categories, which if developed with the maximum number of dwelling units considered appropriate (7.4 units per acre in Office and Neighborhood Commercial; 15.4 units per acre in CBD), would yield as many as 560 dwelling units. Because of the unique nature of these units, a factor of only two persons per household is assumed, and thus a maximum population of 1,120 person could be accommodated within these commercial land use designations. While there is no clear evidence of a market demand in Winters for dwelling units of this kind, such as on upper floors of commercial buildings, nor is there an indication of interest in building such units by area developers, construction of a substantial number of these units could potentially increase the population capacity of the Project Planning Area beyond the preferred objective. However, such units are desirable from the standpoint of other objectives of the DGP, such as a mixed-use CBD and housing affordability. Approval of these units could be compensated for by slowing the approval of more conventional residential development, or even postponing some development to a point beyond the 20-year planning horizon. This could have positive environmental impacts, for example on the rate of conversion of agricultural land to urban uses.

The DGP includes a policy (I.A.3) stating that the actual rate of growth is to be linked to the provision of adequate services and infrastructure. An additional policy is provided (I.A.6) which requires the City to ensure that its designation of land uses and approval of development projects do not hinder efforts to maintain a positive fiscal balance with regard to expenditures for infra-

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structure and public services. Because the provision for dwelling units in commercial areas is on a discretionary basis, the policies of linking growth to provision of services and infrastructure, and managing the approval of projects for a positive fiscal balance, will effectively prevent the development of these units in a manner that adversely affects the ability of the City to meet the objectives of the Draft General Plan.

Alternative II, the Modified DGP, is a variation on the DGP which uses a Modified Land Use Diagram configured to increase the density of residential development within the Planning Area, and to accommodate a population of 14,000 persons by 2010. This is achieved by redistributing approximately 263 acres designated in the DGP Land Use Diagram for each of the different categories of residential designations to different categories. Essentially, about 156 acres of land designated for a combination of Rural Residential (RR), Low Density Residential (LR) and Medium Density Residential (MR) uses have been redesignated as Medium High Density Residential (MHR, 140 acres) and High Density Residential (HR, 16 acres). The category of LR is eliminated, and the acreage of RR designated land is reduced from 50 to 30.

Using the same assumptions of actual densities, and persons per household as described above, Alternative II would result in the construction of 3,824 new dwelling units, of which 1,474 (RR and MR) would accommodate a population of 4,127 persons, while 1,682 new units (MHR) would accommodate a population of 3,869 persons. A total of 668 new HR units are projected to yield a population increase of 1,336 persons. The total of new units under Alternative II would accommodate 9,332 persons, which combined with the 1990 population (4,639) would result in a total Winters population of 13,971, or very close to 14,000. Assuming the buildout of Alternative II by the year 2010, the effect on population increase compared to the proposed DGP (Alternative I), would be to increase the average rate of population increase from about 5.1 to about 5.7 percent per year, or just slightly higher than the growth experienced during the 1980s. A population of 14,000 persons, about 12 percent more than the Proposed DGP objective of 12,500 persons, would necessarily require expanded public services and infrastructure, but would not represent a severe or sharp turn away from the population growth rate established in the decade from 1980 to 1990.

The Modified Draft General Plan incorporates the same policies as the preferred DGP (Policies I.A.3. and I.A.6), to link growth to the provision of services and infrastructure, and managing the approval of projects for a positive fiscal balance, and therefore would prevent the rate of growth from having an adverse impact on the provision of public services and infrastructure.

Both Alternatives I and II would prevent the rate of population increase which is allowed by its land use provisions, from outpacing the ability of the City to provide necessary facilities and services.

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d. Housing Density

Development at an overall density which places excessive burdens on the efficient use of expenditures for infrastructure and public service delivery would represent a significant, adverse impact on the City in its operation and maintenance of these facilities.

The development of relatively large areas of residential uses at low density has potentially significant impacts on the efficiency of land use and infrastructure, delivery of public services, and housing affordability, as well as other effects. At the lower extreme, at or below three units per acre, for example, the cost of roadways, water, sewer and drainage infrastructure on a per dwelling unit basis is substantially more than at higher densities, such as ten or more units per acre, and the utilization of infrastructure is also much less efficient. A density of three units per acre is still noticeably less efficient than a density of six units per acre with regard to infrastructure. Lower densities also reduce the ability of fire and police personnel to respond to emergencies as effectively as compared to higher densities.

The DGP Land Use Diagram designates about 82 acres of land for new residential land uses which are to be developed at between one and four units per acre (LR), and which are expected to average about 3.1 units per acre. In addition, 50 acres of land are projected to develop at a density of less than one unit per acre (RR). Together, these 132 acres represent about 22 percent of the approximately 606 acres designated for new residential development, and are in effect, the areas which will be least efficiently served by infrastructure and public services. This proportion of low density development represents a burden on the efficiency of the city's systems of roadways, water, sewer and drainage improvements, and would constitute a significant impact if this type of development occurred at a faster pace than the other types of residential development.

The DGP includes a policy (I.A.4) which directs the City to guide the sequence of land use development towards promoting the efficient use of public facilities and services, in order to ensure that the City is not unduly burdened by the requirements of infrastructure in the lowest density areas.

Alternative II incorporates a Land Use Diagram which designates 30 acres of land for RR, and no land for LR uses. The 30 acres of RR would represent less than five percent of the total land area designated for residential uses, and therefore would have less potential for an impact on the efficiency of infrastructure and public services.

Alternatives I and II would not have a significant impact on the efficiency of providing infrastructure and public services by the City.

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e. Housing Mixture and Affordability

Development of residential uses which are very limited in variety, particularly if they are of a character which is affordable only to moderate and above-moderate income households, would have a significant impact on the availability of affordable housing in Winters. A failure to provide adequate land designated for housing development at higher densities that would be more affordable to low and very low income households could prevent the City from meeting its regional housing needs objectives set by SACOG, which would be a significant, adverse impact on housing conditions in the region. A high level of uniformity or homogeneity among housing types also adversely affects the range of housing choices for Winters' residents, and may have negative effects on the appearance and form of the city as well, if large areas of residential land uses have a monotonous form dictated by the permitted densities.

The proposed DGP designates land for a variety of differing residential uses and types, ranging from half-acre lots for single family units (RR) to multiple family units (HR). In total, approximately 3,023 new dwelling units are anticipated to be built in the planning area by the year 2010, the planning 'horizon.' Of the estimated 606 acres designated for new housing, about 22 percent of the land is designated for low and very low densities (LR and RR), which are projected to yield about 290 single family houses, or almost 10 percent of all the units. The largest category, for single family attached and detached (duplex-type, for example) units would utilize almost 61 percent of the land area designated for housing, and is projected to yield almost 1,700 units, or about 56 percent of all the units.

At the higher densities, relatively small amounts of land are projected to yield substantial proportions of the total number of dwelling units. About 13 percent of the land is designated for Medium High Density (MHR), which is expected to yield 600 units, or about 20 percent of all the units, at an average density of 7.7 units per acre of attached and detached single family and multiple family homes. Finally, about 430 units, or around 14 percent of all the projected housing, is anticipated to be developed in the HR designation, at an average density of 15.4 units per acre, on a total of about 28 acres, or under five percent of all residentially-designated land area. Secondary units are permitted in the RR and LR designations, and detached single family houses are included among the uses defined for MHR and HR designations, with the intention that a variety of housing opportunities within each designation will be developed.

While no direct relationship between density and affordability can be established, because of lower land costs and efficient use of public facilities and services, housing development occurring at higher densities is ordinarily less expensive per unit, and more affordable to lower income households. In general terms, the distribution of the total units among different density categories appears to be sufficient for Winters to meet the regional "fair share" needs defined by SACOG for each of four income groups. SACOG has defined the projected need in Winters at a total of

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499 new units between January 1, 1989 and July 1, 1996. During 1989 and 1990, 221 new units were added, adjusting the projected need downward to 278 units to be built in the remaining five and a half years. The total number of units can be developed in Winters without increasing the rate of growth anticipated in the DGP.

However, whether the housing units built between January, 1991 and July, 1996 will meet the needs of all income groups, and particularly the needs of low and very low income households, depends greatly on the way in which housing is developed.

Of the 221 units approved for construction during 1989 and 1990, 185 units were detached single family homes, of which an estimated 135 were affordable to above-moderate incomes, 50 were affordable to moderate incomes, and presumably none were affordable to low or very low income households. The other 36 housing units were built in structures with between two and four units each, and only about half are assumed to be affordable to low income households.

The various residential designations for new development are physically distributed in a relatively random manner, with two large areas set aside for each of the lower density designations (RR and LR), and four areas each for the higher density designations (MHR and HR). Areas designated for MR are spread throughout the planning area, and are generally divided by primary and secondary collector streets into small individual areas of between 10 and 30 acres.

However, there are three general locations on the east, north and west where, except for the collector streets, the extent of the area designated for MR use spreads over as many as 75 acres. The continuity of this land use designation is not punctuated or relieved by other land use provisions and, moreover, it provides for the narrowest range of housing densities, resulting in the least variation in housing type. The MR designation allows a density of between 4.1 to 6.0 units per acre, which promotes lot sizes between 5,000 and 7,500 square feet. These lot sizes are typical of the vast majority of suburbs in the nation, and the regional market demand for housing, and home ownership, in this range of lot sizes, is relatively strong. Classic suburban qualities, e.g., garages, driveways, frontyards and sideyards, located on cul-de-sacs or other low-traffic routes are all features that the home-buying public have come to expect from new housing development, and these characteristics could be accommodated fully in the MR land use designation. However, the land costs for development at this density has also steadily risen, to a point where the price of such homes is out of the reach of most households.

Homes built on lots of approximately 7,500 to 8,000 square feet are typical of those built in Winters recently which sold for between \$175,000 and \$205,000. The lower end of this range is about 18 percent higher than the reported October 1990 average sales price of \$148,000. The typical lot size in the areas designated MR are projected to be somewhat smaller, at around 6,600 square feet, and therefore somewhat less expensive than larger lots, but by a factor that is hard to

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predict. Inflation in housing prices continues to be a serious problem, and may continue at the 15 percent rate increase experienced from 1989 to 1990, but would very likely remain at least as high as 10 percent per year. A 10 percent per year projection of inflation from the October 1990 average sales price figure of \$148,000 would result in a median price in 1991 of \$162,800, in 1995 of about \$238,400, and by the year 2000, of \$383,900.

The rate of inflation and affordability of housing is in part a function of market conditions, in which a ready supply of homes will initially lower their costs, while in later stages expectations for a continued supply of homes will drive prices upwards, and accelerate the rate of growth upwards as well. This phenomenon could adversely affect the ability of the City to maintain the objective of a limited rate of population growth as defined in the Draft General Plan.

SACOG defines the City's fair share of regional housing need to include 113 units affordable to households with very low incomes, and 87 units for low income households. This would be equivalent to about 19 units per year for very low income households, and about 15 per year for low income households. A very low income household, with a maximum annual gross income of \$19,850, would only be able to afford to buy a house priced at about \$64,000, based on a 30-year, fixed-rate mortgage at 10.0 percent interest, with one third of income going to housing costs. This assumes that the household has accumulated sufficient savings to pay a 20 percent down payment, however. The same household could afford to rent a dwelling unit for up to \$550 a month. For-sale homes or rental units at these prices are virtually unavailable without substantial financial assistance from a governmental agency, a special incentive or subsidy for home builders, or government programs to conserve existing units within this category that may become available.

It is estimated that a low income household, with a maximum income of \$31,760, would be able to afford a house priced at \$102,500, or \$880 per month for a rental unit. Homes for sale or rent at this price are often available on the market, without governmental assistance, when developed at higher densities that increase the efficiency of providing infrastructure and public services, and decrease the land costs. Land designated in Winters by the DGP for units in the MHR density designation is expected to be developed at an average of 7.7 units per acre, which may include a portion of units affordable to low income households, without direct governmental subsidies. For the purpose of the following EIR analysis, which is focussed narrowly on the issue of whether sufficient land has been designated in the planning area to provide opportunities in the marketplace for affordable housing, this proportion is estimated to be one-half (50 percent), and does not include any units affordable to very low income households. Of the dwelling units projected to be developed within the HR designation, at a density of 15.4 units per acre, it is estimated that 60 percent will be affordable to low income households, 20 percent will be affordable to very low income households, and the remaining 20 percent will be affordable to moderate or above-moderate income households. A common problem, however, is that builders of market-rate hous-

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ing at these higher densities do not typically include adequate numbers of individual units that are large enough for a family of three or four persons, making affordability a still more difficult problem for families.

Assuming that the 600 units projected to be developed in areas designated as MHR are built in evenly distributed annual increments in the years between 1991 and 2010, about 150 units could be developed by 1996, of which 75 might be affordable to low income households. Of the 430 units which could be developed in areas designated as HR, about 110 could be built by 1996, with 66 units affordable to low income households, and 22 units affordable to very low income households. Therefore, it appears that enough land has been designated at sufficiently high densities to accommodate housing for low income households, that would meet the City's fair share of regional housing need, but that for households with very low income, an aggressive program of housing subsidies and incentives would be required.

In addition to probable problems of affordability in the large areas designated for MR, there is a high potential for repetitiveness, monotony and sameness in the appearance of these neighborhoods, which could adversely effect their quality and vitality.

The Draft General Plan expresses a variety of policies directed at the Goal of a broad mixture of housing types and densities to meet the housing needs of all economic groups in Winters. Policies under Goal II A require the City to strive to meet its fair share of regional housing needs, to pursue a ratio of 75 percent single family homes to 25 percent multiple family dwelling units, and to seek out various means of funding assistance for the construction of new units affordable to lower income households.

The Implementation Programs of the Housing Element identify the means by which the City will meet its objectives for housing, including the provision of both rental and ownership units affordable to low and very low income households. Among the programs are requirements for the City to revise its Zoning Ordinance to allow a variety of incentives for development of affordable housing, including: a density bonus and one other incentive (yet to be determined) as required by state law; conditional permits for secondary units in residential areas; establishment of mobilehome parks; and provisions for duplexes and "halfplexes" on corner lots in single family residential zoning designations. Four of the Implementation Programs describe targets for development or conservation of affordable units by the year 1996, which includes 173 units for very low income households, 95 for low income households, and 120 for moderate income households. The quantified objectives for construction of new units in each income category, summarize the Housing Element's intention to meet the regional housing needs defined by SACOG, and for rehabilitation and conservation of units affordable to low and very low income households. These programs indicate the City's commitment to enable the development of new

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housing units which would be affordable to persons and households in all economic segments of the community.

The Draft General Plan Housing Element provides a number of means to ensure that a broad range of types and densities of new housing will be built, including units which would be affordable to low and very low income households, and it therefore will not have a significant impact on the affordability of housing in Winters.

f. Urban Form

The extension of new urban development, including a new network of streets, with residential, commercial, and industrial uses and additional public facilities, can have potentially adverse impacts on the city's established and new residents, and have a negative impact on its visitors as well, if it lacks functional integrity. How well a city functions is related to the layout of its principal streets, and to the arrangement of differing land uses to serve the needs of its residents. Criteria for a functional city include safe access between all of the uses, protection or separation of incompatible land uses from each other (e.g., residential neighborhoods and noisy or otherwise objectionable industrial uses), provision of a variety of types of open spaces for individual, group and civic needs for recreation, association, and other purposes (e.g., private yards, neighborhood parks and community-wide facilities), and opportunities for all its residents to successfully pursue their interests, activities and livelihood.

In specific terms, the form of the city should provide sufficient land areas for the principal activities of residents (including residential land uses), distribute the types of uses into a variety of locations which are separated from each other as needed to avoid constraints on each activity's effectiveness, and include streets and roads that interconnect these uses as directly as possible.

The Land Use Diagram of the proposed DGP indicates that new growth of the city will occur primarily in a half circle area surrounding the existing urban area from Grant Street on the west, around the city to the north to Grant Street on the east, with some added areas to the east, south of Grant Street. The Diagram incorporates a loop arterial roadway that is generally centered within this arc of proposed development. The loop arterial will connect to the existing Main Street on the west at Grant Avenue and on the east at Morgan Street, forming a complete loop around the city, and serving as a principal access route. This Main Street Loop establishes an urban form that is typical of generally much larger cities or metropolitan areas that develop multiple "satellite" centers, between which access and linkage eventually becomes as important as access to the urban center itself. However, such a loop typically emerges only after a strong radial network has developed, and important land uses have emerged at the perimeter of the city. This is not presently the case in Winters, and thus the loop arterial would initially connect low density

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residential neighborhoods to other similar neighborhoods. However, it also links these neighborhoods to the Central Business District, to the new high school, and to the major community park identified by the Diagram in the north-central area of the city. **The impact on urban form of Alternatives I and II would not be significant.**

g. Town Character

Loss of Winters' agricultural heritage, as represented by its partial reliance on the agricultural economy, proximity to farmlands which surround Winters and expose its residents to agricultural activities (possibly including its sounds and smells), and features such as the Agricultural School, would represent a significant impact on the quality and established character of life for Winters' residents. Winters' small-town qualities, as represented by relatively low traffic volumes, a small, low density central business area, moderate-to-low density residential areas, smaller and more distinctive subdivisions, and a small population relative to other cities in the region, if lost, would also represent a significant impact on Winters.

Implementation of the proposed Project would result in a substantial expansion in the physical, social, economic, cultural and institutional development in Winters. A substantial change in the scale and size of the city would not appear to promote the preservation of the identity, integrity or uniqueness of the existing small-town character. Development as defined by the proposed DGP would, by many local residents' standards, constitute a departure from Winters' small town character, or at least a redefinition of the meaning of that label for Winters. However, the development would occur over a lengthy period of time (20 years), and the annual incremental change would not be inconsistent with growth experienced in the past ten to twenty years. The city would remain among the smallest towns in the region, but the scale of individual subdivisions, critical to the formation of neighborhood identity, could increase substantially. The moderate-density qualities of the small-town, characterized by a high proportion of smaller residential lot sizes interspersed with larger lots, could be largely eliminated in the character of new development. The increases in traffic expected to result from development could present a negative, more urbanized image inconsistent with a small town, as well as potential traffic hazards.

The extent and character of urban development which is designated on the Land Use Diagram of the DGP could potentially isolate many or most of Winters' residents from the awareness of how Winters developed, and its continuing major role in the agricultural economy of the area. Development could obscure the visible and other aspects of farming from the majority of residents, and potentially result in an increase in the conflicts between city residents and adjacent farmland owners, as a result of unanticipated and unappreciated odors, sounds and other activities possible. Elimination of the Agricultural School, and agricultural produce transportation and pro-

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cessing industries would individually and collectively represent a substantial loss of the city's agricultural character.

The proposed DGP includes a policy (I.A.1) which promotes the preservation of Winters' small-town qualities and agricultural heritage, while increasing its level of residential and employment development. The Agricultural School is proposed to be retained (Policy IV.H.1), and a farmers' market is also encouraged (Policy VI.B.4), which would emphasize the city's agricultural heritage in an effective manner. The majority of new residential development would occur at a low density, in keeping with the perceived qualities of a small town.

Although the central business district (CBD) would be supplemented by new commercial development in other areas of the city, the DGP provides policies (I.B.1,4,6-8) to strengthen the downtown as a pedestrian-oriented, multiple-use district with upgraded building facades, emphasis on retail uses, and redevelopment of existing industrial uses as an extension of existing downtown commercial activity.

The impact of Alternatives I and II on town character would not be significant.

2. Yolo County General Plan

Land use development as projected to occur by the DGP could potentially be in conflict with the goals and policies of the Yolo County General Plan (YCGP) for urban development, in the event that the DGP's policies for guiding the character of development are not closely adhered to.

The DGP is in most respects consistent with the goals and policies of the YCGP, particularly with regard to the development of urban uses within existing planned urban areas. Though the DGP proposes urban development outwards from Winters on land that includes prime agricultural land, it confines development within a relatively compact and contiguous area defined by an Urban Limit Line defined by the Yolo County LAFCO. The goals of the YCGP with which the DGP is more directly consistent include providing industrial growth, and improving urban areas and expanding them according to planned urban boundaries. The degree to which the DGP promotes development that could be characterized as "urban sprawl" has been discussed above ("Pattern of Development"), and the impact was determined to be not significant.

The YCGP policies which were enumerated in the Setting section can be summarized as concerning two major issues, discussed briefly under the following headings:

- a. Phasing of development with regard to the protection of prime agricultural land (all the land use and administration policies, and OS 1-5 and CON 1, 2, 3, 11, 12).

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The Natural Resources Element of the DGP expresses a goal (VI.B) to protect the agricultural land surrounding the city from premature conversion to urban uses, through policies supporting continued agricultural activities on land designated for urban uses until that land is annexed or until development is imminent (Policies VI.B.1 and VI.B.2). The DGP also requires the City to support economic incentives which increase the competitiveness of the area's agricultural economy (VI.B.3), maintain proper state law procedures for cancellation of Williamson Act contracts (VI.B.5), and to adopt a right-to-farm ordinance (VI.B.6).

The process of converting prime agricultural land to urban uses, and of expanding the urban area of Winters is fundamentally consistent with the policies of the Yolo County General Plan and is therefore not a significant impact on the land use goals of Yolo County. The conversion to urban use of lands having prime agricultural soil resource values is in itself a significant impact, and is addressed in Chapter XIII, section C.

Alternative II, the Modified Draft General Plan, incorporates the same policies as the Project with regard to protection of agricultural land, procedures for conversion of agricultural uses to urban development, and for promoting the area's agricultural economy. By increasing the density at which residential development would occur within the planning area, in the event that population growth is slower than anticipated, the pace of conversion of agricultural land to urban uses could be slowed to some degree. The general process of urbanization of agricultural land under Alternative II would be essentially the same as the Project, and therefore is not a significant impact.

- b. Scenic and open space corridors incorporating pedestrian and bicycle paths (all scenic highway policies, OS 6, 8, 9, and SCH 2, 12).

The Draft General Plan incorporates open space corridor protection of Putah and Dry Creeks into its Natural Resources Element, with various policies to protect the environmental quality of these Creeks (VI.A.2, 5 and 6, and VI.D.1 through 7). The Transportation and Circulation Element promotes pedestrian and bicycle travel within the city, and development of an area-wide bikeway system in cooperation with other jurisdictions (III.G.3). The establishment of design guidelines for Highway 128 consistent with its designation as a Scenic Highway is promoted by the DGP in the Community Design Element (VIII.A.7). Additional discussion of the visual impacts of the Draft General Plan are provided in Chapter XIII, Visual and Other Considerations.

The Draft General Plan will promote the development of a scenic and open space corridor, with a bikeway system and design improvements along Highway 128 and Putah Creek, which is consistent with the Yolo County General Plan, and is therefore not a significant impact on these goals of Yolo County.

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C. MITIGATION MEASURES

No mitigation measures are necessary.

IV. TRANSPORTATION AND CIRCULATION

The chapter presents the existing transportation setting for the City of Winters and describes the impacts and mitigations associated with the Draft General Plan (Alternative I: 12,500 population) and the Modified Draft General Plan (Alternative II: 14,000 population).

A. SETTING

This section presents a description of existing traffic and transportation in Winters based on field surveys and subsequent analysis.

Street Network

Major streets serving the City of Winters include I-505, State Route (SR) 128/Grant Avenue, Railroad Street, and Main Street. These streets and the average weekday traffic they carry are shown in **Figure 11**.

Regional Roadways

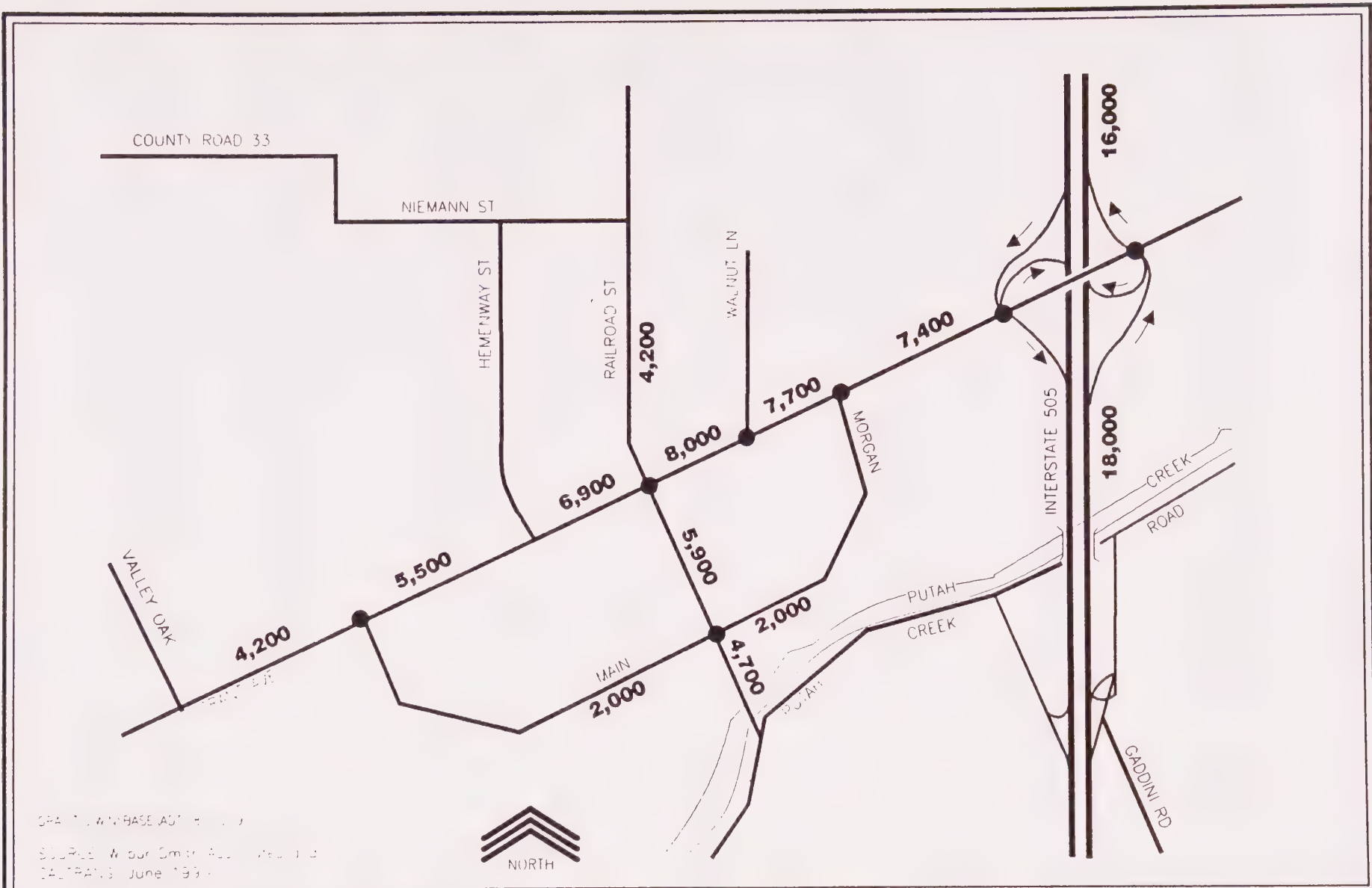
Interstate 505 (I-505): I-505 is the major regional access route for Winters. The north/-south four-lane divided highway forms the eastern boundary of the City. I-505 provides a link between I-80 to the south and I-5 to the north. According to 1988 estimates of average daily traffic (ADT), I-505 carried between 16,000 and 14,000 daily trips in the vicinity of the SR-128 junction during the peak month period.

California State Route 128 (SR-128): SR-128 is an east/west two-lane arterial running from I-505 through the City of Winters, where it is named Grant Avenue. SR-128 is connected to the City of Davis on the east and provides access to Napa County and Lake Berryessa to the west. At the intersection of I-505 and SR-128 the 1990 ADT was estimated at 7,400. SR-128 is a major link between Winters and Davis.

Local Roads

The major local street intersection is Grant Avenue (SR-128) and Railroad Street (County Road 89), which is controlled by four-way STOP signs. There is a red flashing warning light at this intersection.

Grant Avenue: Grant Avenue serves as Winters' major east/west arterial road. This two-lane street provides local commuters with access to I-505 and the City of Davis to the east. As shown in **Figure 11**, average daily traffic based on June, 1990 counts ranged from 7,400 to 8,000 between Railroad Street and I-505.



AVERAGE DAILY TRAFFIC - JUNE 1990

Winters General Plan EIR

IV. TRANSPORTATION AND CIRCULATION

Caltrans reports the average daily volume on this segment to range from 7,200 to 7,800, increasing to 8,400 to 9,100 during the peak month (September or October). Peak month volumes are the result of both locally-generated traffic and regional recreation traffic to and from Lake Berryessa.

Railroad Street: Railroad Street has one lane in each direction and is designated as an arterial street in the Winters General Plan. It runs from Solano County, south of Putah Creek, to the town of Esparto north of Winters. The street is a major route for traffic from residential areas to Grant Avenue and to Winters Central Business District (CBD). Average traffic on Railroad Street, south of Grant, is estimated at 5,900. North of Grant Avenue, daily traffic is 4,200 vehicles per day.

Main Street: Main Street serves as a major east-west collector for the City's oldest residential area, south of Grant Avenue, and is also utilized for commercial traffic in the CBD. Average traffic is estimated at 2,000 vehicles per day.

Other important residential collectors include Valley Oak Drive, Taylor Street, Hemenway Street, Niemann Street, Anderson Drive and Walnut Lane.

Existing Transit

Transit service is provided to Winters by YoloBus, under a joint powers agreement between the County and the Cities of Winters, Woodland, Davis and West Sacramento. Five round trips are provided daily on weekdays between United Market in Winters and the Amtrak Station in Downtown Davis, with service to D. Q. University along the way. This service traverses Winters via a loop, serving Grant Avenue westbound and Abbey and Main Streets eastbound, with an additional loop serving the high school via Hemenway Street during part of the day. Three round trips are provided on Saturdays, with the eastern terminus at County Fair Mall in Woodland.

Greyhound Bus Lines and Amador Stage Lines also serve the region. Greyhound includes Winters as a request stop only. Amtrak service to Oakland and Bakersfield is available at Davis.

Existing Traffic Conditions

Existing traffic operations were evaluated at the following unsignalized intersections:

- ◆ Grant Avenue/I-505 SB Ramps;
- ◆ Grant Avenue/I-505 NB Ramps;
- ◆ Grant Avenue/Main Street;
- ◆ Grant Avenue/Railroad Street; and
- ◆ Main Street/Railroad Street.

IV. TRANSPORTATION AND CIRCULATION

Existing traffic data used in the analysis were obtained by field counts taken by Wilbur Smith Associates on Thursday, June 21, 1990. **Figures 12 and 13** illustrate turning movements and traffic volumes for morning and afternoon peak hours, respectively.

Of the five intersections analyzed, two are four-way STOPS and three are T-intersections with STOP signs only on the minor street approach. Because of differences in traffic operations at these two types of intersection, different methods are used to analyze traffic conditions.

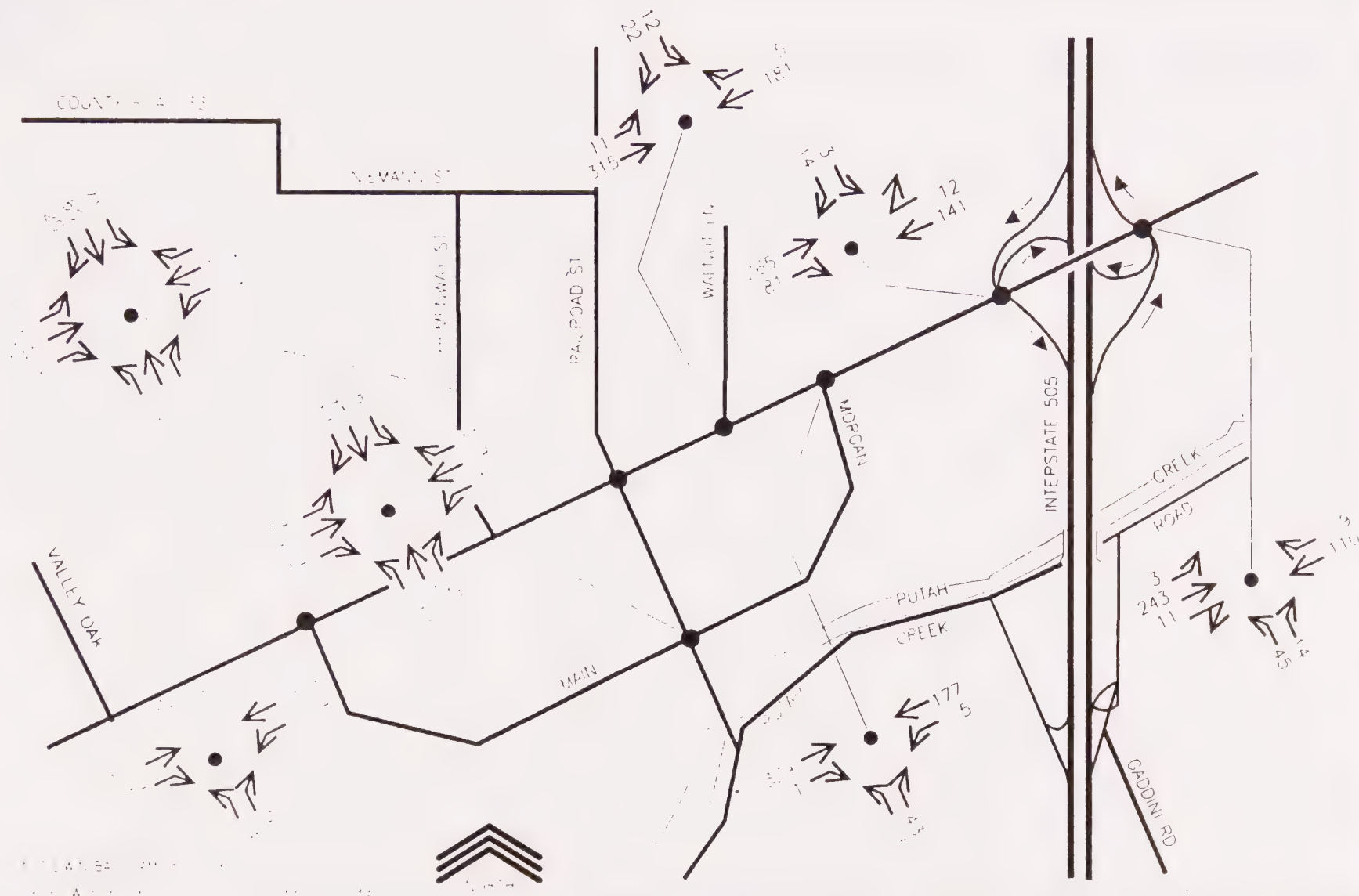
"T" Intersections

Level of service (LOS) estimations were used to evaluate traffic conditions at the "T" intersections. The level of service is a single letter evaluation similar to a grade. The levels of service, ranging from LOS "A" to LOS "F", are a method for describing the operating conditions at an intersection, with LOS "A" indicating excellent operating conditions, and LOS "F" very poor conditions. The determination of level of service at "T" intersections is based on the reserve capacity available to a given turning movement. The reserve capacity is the number of vehicles above the observed or expected number which could be accommodated by the turning lane at the intersection in question.

Four-Way STOP Intersections

The intersections at Grant Avenue/Railroad Street and Main Street/Railroad Street are four-way STOP intersections. The techniques used to evaluate level-of-service for these intersections are different than those for other unsignalized and signalized intersections. The 1985 Highway Capacity Manual provides tables which indicate total volumes for LOS C operation and unacceptable operation under various lane configurations and traffic volume percentages. The method used to evaluate four-way STOP intersections is to calculate the total volume at intersections and the percentage of traffic in each direction, then compare the volume with the appropriate volumes in the tables. Intersection operation can then be characterized as "LOS C or better"; "between LOS C and capacity"; or "over capacity". Existing levels-of-service in both the AM and PM peak hours at the five intersections are provided in **Figure 14**.

As indicated in **Figure 14**, all intersections are operating at LOS C or better during the AM peak period. The intersection at Grant Avenue and Railroad Street experiences a significant volume increase during the PM peak period and operates at between LOS C and capacity. Results of each intersection analysis are described below.



EXISTING AM PEAK HOUR VOLUMES

Winters General Plan EIR



EXISTING PM PEAK HOUR VOLUMES

Winters General Plan EIR

Figure 14

EXISTING LEVELS OF SERVICE FOR UNSIGNALIZED INTERSECTIONS

T Intersections	Movement	AM Peak Hour		PM Peak Hour	
		RC	LOS	RC	LOS
Grant Avenue/ SB I-505 Ramps	SB Left	453	B	324	A
	SB Right	818	A	568	A
	EB Left	960	A	723	A
Grant Avenue/ NB I-505 Ramps	NB Left	446	A	274	C
	NB Right	723	A	737	A
	WB Left	875	A	918	A
Grant Avenue/ Main Street	NB Left	541	A	304	B
	NB Right	814	A	728	A
	WB Left	936	A	841	A
Four-Way STOP Intersections					
Grant Avenue/Railroad Street	Overall	*	CoB	*	C&C
Railroad Street/Main Street	Overall	*	CoB	*	C&C

RC = Reserve Capacity

LOS = Level of Service

* = Four-Way STOP: the reserve capacity concept is not applicable.

CoB = LOS C or better.

C&C = Between LOS C and capacity.

Wilbur Smith Associates; July 1990.

IV. TRANSPORTATION AND CIRCULATION

Grant Avenue/Southbound I-505 Ramps: This segment of the partial cloverleaf interchange is controlled by a STOP sign on the I-505 southbound off-ramp. The overall operation for these ramps is LOS A during both the AM and PM peak hours.

Grant Avenue/Northbound I-505 Ramps: This segment of the I-505 interchange is controlled by a STOP sign on the northbound off-ramp. The interchange operates at LOS A during the AM peak hour. Overall operation during the PM peak hour is good with northbound left-turns operating at LOS C due to afternoon commute volume increases.

Grant Avenue/Main Street: This "T" intersection is controlled by a STOP sign at the Main Street approach. It operates at LOS A during both the AM and PM peak hours.

Railroad Street/Main Street: This intersection is controlled by STOP signs at all four approaches. The traffic pattern at this intersection is uneven, with more than 70 percent of the AM and PM peak volume utilizing Railroad Street. Intersection operation is well above LOS C during the morning and afternoon peak hours.

Grant Avenue/Railroad Street: This intersection is controlled by STOP signs at all four approaches. The level of service analysis indicates a relatively even distribution of traffic during both the morning and afternoon peak hours. The intersection operates at above LOS C during the AM peak hour. The AM peak hour total volume increases by 76 percent during the PM peak hour which results in a level of service of between LOS C and capacity.

Level of Service Summary

Under existing conditions, the three intersections and the I-505 interchange ramps are all operating at or above acceptable levels of service (LOS C), with the exception of the Railroad Street/Grant Avenue intersection during the PM peak hour, which operates at between LOS C and capacity. This intersection meets the Caltrans traffic signal warrant for peak hour volumes during the PM peak hour. It should be noted that the satisfaction of a warrant is not necessarily justification for a signal. Factors such as delay, congestion, confusion or other evidence of operational problems must be shown. The Railroad Street/Grant Avenue intersection was observed to be operating in an effective manner during the PM peak period. Westbound traffic on Grant Avenue tended to stack up at the approach but overall vehicle delay was observed to be of short duration. At present this intersection is operating effectively during the PM peak period. Future consideration of a signal may be warranted based on changing demands and overall growth in the area. Signal warrant analysis sheets and unsignalized intersection capacity analyses are in the Traffic and Circulation Appendix.

IV. TRANSPORTATION AND CIRCULATION

Through Traffic

As a State Route, Grant Avenue carries a substantial amount of through traffic at different times of the year. The variation in through traffic is based on the level of activities at Lake Berryessa and other recreation areas to the west of Winters, and on the level of agricultural activity in the areas surrounding Winters on all sides. To assess the level of through traffic on Grant Avenue, a license plate survey was conducted on Thursday, June 21, 1990 during the peak periods of 7:00 AM - 9:00 AM and 4:00 PM - 6:00 PM.

License plates were recorded at two check points located to the west of Valley Oak Drive and to the east of Railroad Street on Grant Avenue. License plates recorded at both checkpoints were assumed to be through-traveling vehicles. The results of the survey for the peak hours are presented in **Figure 15**.

The license plate survey indicates that during the peak periods 21 to 31 percent of the total traffic on Grant Avenue at Railroad Street are through-traveling vehicles. The surveys were conducted in June, and many of these through-moving vehicles represent recreational trips, to and from Lake Berryessa. Recreational trips are not as peak-oriented as work and shopping trips, therefore, the daily percentage of through traffic on Grant Avenue could be as high as 35 percent. During peak months (September and October), through traffic on Grant Avenue is estimated to be 2,500 - 3,000 vehicles per day.

Congestion Management Plan

The Yolo County Congestion Management Plan designates Grant Avenue and Railroad Street as part of the congestion management network. Level-of-services on these routes must be LOS D or better. Currently these routes operate at LOS C or better.

Existing Parking

In October and November of 1989, the City of Winters conducted a parking survey directed at business owners in the downtown area. The survey results indicated that all of the merchants contacted felt that there was no parking problem in the downtown area.

There are two major public parking facilities located in the Central Business District (CBD). A 60-space dual-purpose lot at the Community Center provides parking for the center and for downtown businesses. A joint City and Caltrans park-and-ride lot provides 50 spaces on Railroad Street. There is a lot with 4 to 6 spaces across from City Hall which is open to the public. In addition there are 110 on-street parking spaces provided in the downtown area between Railroad Street and Second Street on both sides of Main Street. A midday parking occupancy study was conducted on June 21, 1990 in the Winters CBD.

Figure 15

THROUGH TRAFFIC ON GRANT AVENUE

	AM Peak		PM Peak	
	WB	EB	WB	EB
Total Traffic on Grant Ave. ¹ at Railroad Street	191	222	450	303
Number of Through-Travelling Vehicles ²	41	62	120	93
Percentage of Through Traffic	21%	28%	27%	31%

¹ Counts taken June 21, 1990.

² Based on license plate surveys recorded west of Valley Oak Drive/Grant Avenue and east of Railroad Street/Grant Avenue.

Wilbur Smith Associates; June 1990.

Figure 16 shows the results of the survey. Hourly vehicle counts were recorded between 10:00 AM and 3:00 PM for all available public parking in the area of Railroad, First and Second Streets along Main Street. Under existing conditions, the downtown parking supply is adequate. There is an average midday utilization rate of about 40 percent with the peak midday demand for parking occurring between noon and 1:00 PM.

B. IMPACTS

Analysis Assumptions

To project the impacts of future development within Winters on the City's streets, a computerized model of Winters' street system was developed utilizing MINUTP modeling software. Traffic forecasting with MINUTP requires three types of input data:

- ◆ Street network data (both existing and proposed);
- ◆ Quantities and types of land uses; and
- ◆ Behavioral data on travelers to, from, and within Winters.

Street network data describes the street system for which traffic will be forecast. The network ties together a system of traffic analysis zones (TAZ's). A TAZ system of 61 zones was used for this analysis. The TAZ boundaries defined for the model are depicted in **Figure 17**.

Future Roadway Network

The basic future roadway network assumed in the MINUTP model was provided to WSA by the City of Winters in the form of a base map with an overlay depicting the basic function of key roadways. Minor modifications were made to this street system following discussions with the City. Alternative Putah Creek bridge crossing options were also identified for testing purposes, as discussed below. **Figure 18** depicts the basic future network defined by the Draft Circulation Master Plan, and which was utilized for model runs in this study. Key modifications to this network included:

- ◆ New Main Street Loop Road north of Grant Avenue;
- ◆ Road 32A Extension from County Road 88 to County Road 90;
- ◆ Road 33 Extension from County Road 88 to County Road 90;
- ◆ Valley Oak Drive Extension to Road 32A;
- ◆ Hemenway St. Extension to Road 32A East of Railroad Ave;
- ◆ East Baker Street Extension to Grant Avenue opposite existing Road 90; and
- ◆ New connection from Road 33/Industrial Road to Grant Avenue west of the Baker St. terminus.

Figure 16

WINTERS CBD MIDDAY PARKING OCCUPANCY

	Public Parking Lot ¹		On-Street Parking ²				Total	%*
	Community Center Lot	Caltrans Park-and-Ride Lot	Railroad/1st North Block Face	1st/2nd North Block Face	Railroad/1st South Block Face	1st/2nd South Block Face		
Total Space Available	60	50	34	20	29	27	220	100%
10 AM	12	14	21	9	17	6	79	36%
11 AM	16	21	24	8	25	10	104	47%
12 PM	18	23	25	10	20	8	106	48%
1 PM	18	13	22	6	18	9	86	39%
2 PM	16	12	22	6	18	8	82	37%
3 PM	14	11	23	16	6	8	78	35%

¹ 48 hour unmetered parking

² 2 hour unmetered parking (9:00 AM - 6:00 PM).

* Average occupancy 40 percent.

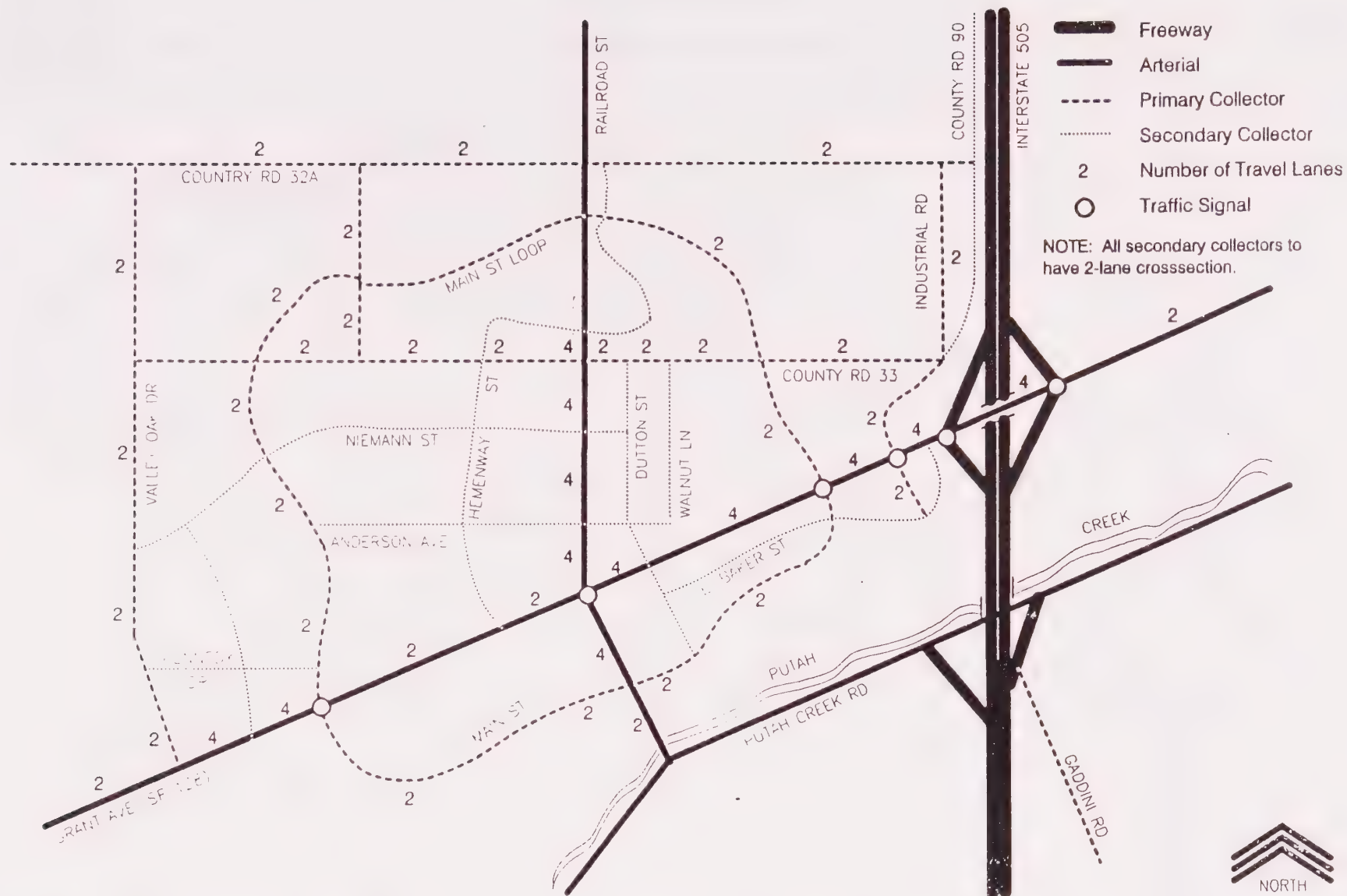
Source: Wilbur Smith Associates; June 1990.



TRAFFIC ANALYSIS ZONES

Winters General Plan EIR

Winters General Plan EIR



A new Johnson Road extension and bridge over Putah Creek were also assumed in some modeling alternatives.

Future Land Use

Future land uses were provided to WSA in the form of base maps and spreadsheets prepared by City staff and the General Plan Consultant, J. Laurence Mintier & Associates. Land uses were provided for the Draft General Plan featuring a total population of 12,500 persons (Alternative I), and for a total population of 14,000 persons (Alternative II: the Modified Draft General Plan). The alternatives featured the same total acreages, with the differing population densities accomplished by reclassifying parcels to higher housing unit densities (from medium density residential to medium high density residential, for example). Projections of commercial land uses were also provided. These were converted to employment using standard employee density factors listed in **Figure 19**.

Figure 20 summarizes the various land use plans and their gross effect on traffic generation in Winters. As can be seen, the 12,500 population plan represents an increase of 185 percent in resident population and nearly 600 percent in jobs within Winters. Overall, these land use changes are projected to increase total trip-making by approximately 225 percent, from an estimated 25,800 daily trips originating or terminating within Winters to 83,700. Increasing the population to 14,000 is projected to add approximately 9,400 more trips than the trips associated with the Alternative I, 12,500 population level.

External Travel

Another key input to the model is the assumption regarding travel external to Winters. According to the January 1989 Central Business District Consumer Survey, approximately 54 percent of employed Winters residents currently commute to jobs outside the City. For modeling purposes, it was agreed that this percentage would be assumed to remain constant.

Draft General Plan Impacts

As shown in **Figure 21** for the Draft General Plan (12,500 population), Grant Avenue is projected to carry as many as 24,800 vehicles daily east of East Main Street, compared with a current ADT of approximately 7,500. Immediately west and east of Railroad Street, Grant Avenue is projected to carry 16,400 and 15,400 vehicles, respectively, compared with 6,900 and 8,000 today. Traffic on the Putah Creek bridge is projected to reach 7,900 (currently 4,700 ADT). Elsewhere on Railroad Street, daily volumes are projected to reach 5,500 north of Grant Avenue and 6,500 south of Grant Avenue, compared with existing volumes of 4,200 and 5,900.

Figure 19

EMPLOYMENT DENSITY AND TRIP GENERATION FACTORS

Land Use Type	Employees per Acre	Trips per Employee
CC (Central Commercial)	44	15.7
NC (Neighborhood Commercial)	44	15.7
LC (Local Commercial)	44	15.7
HSC (Highway Service Commercial)	14	15.7
HIC (Highway High-Intensity Commercial)	14	15.7
LI (Light Industrial)	18	4.2
PI (Planned Industrial)	18	4.2
HI (Heavy Industrial)	18	4.2
AI (Agricultural Industrial)	6	4.2

Source: Wilbur Smith Associates; August 1990.

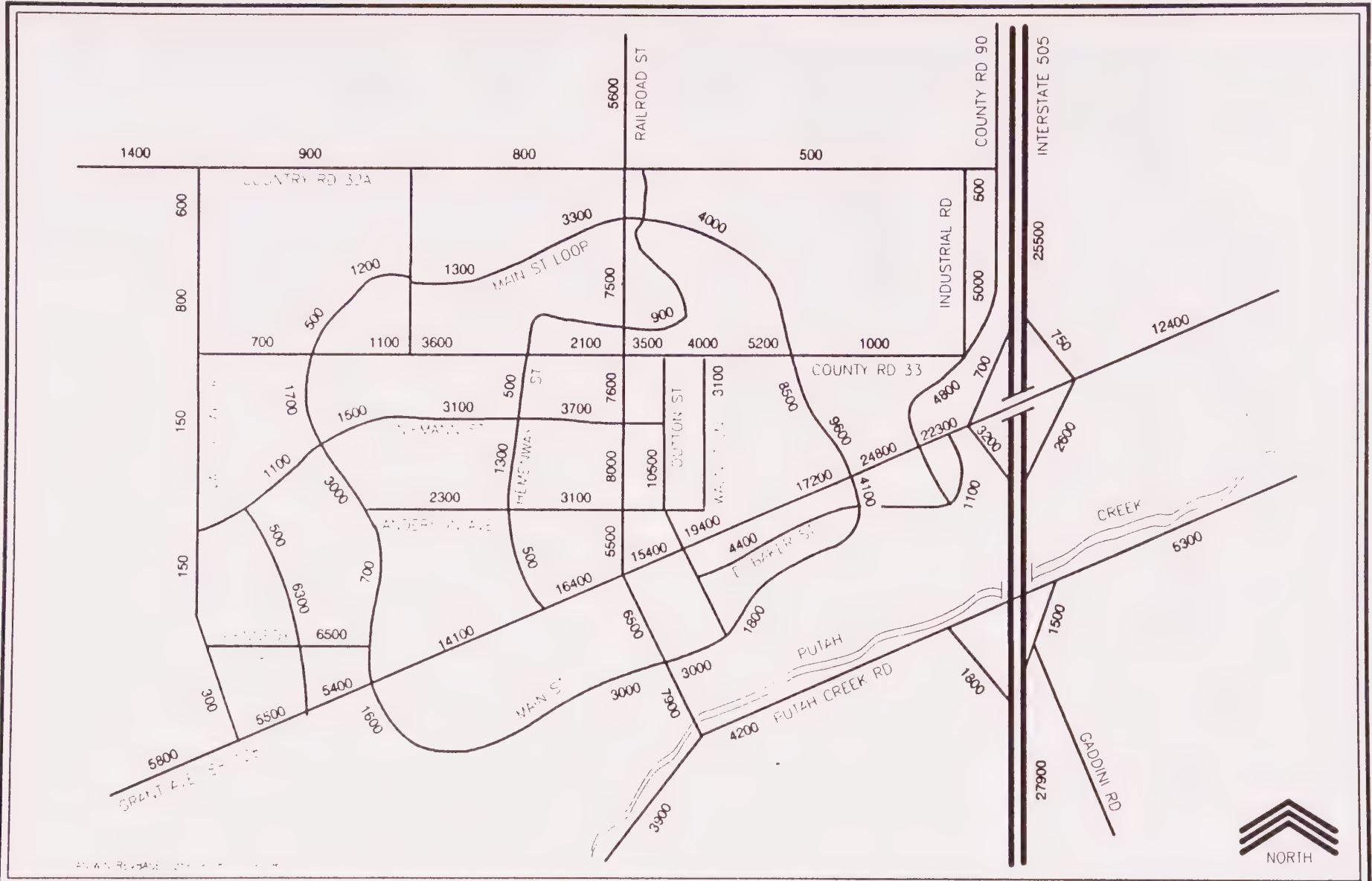
Figure 20

COMPARISON OF LAND USES AND TRIP GENERATION

	DU*	%*	Jobs	%*	TP*	%*
Existing Conditions	1,630	--	940	--	25,800	--
Future 12,500 Population	4,650	185%	6,420	583%	83,700	224%
Future 14,000 Population	5,450	234%	6,420	583%	93,100	261%

DU = Dwelling Units;
 % = Percent Increase;
 TP = Trips Produced.

Source: Wilbur Smith Associates; June 1991.



FORECAST DAILY TRAFFIC 12,500 POPULATION
Winters General Plan EIR

IV. TRANSPORTATION AND CIRCULATION

Of the proposed new roadways, substantial volumes are projected for future conditions with the 12,500 population alternative on the Main Street Loop Road (8,500-9,600 daily vehicles between County Road 33 and Grant Avenue), County Road 33 (5,200 west of the Loop Road) and on the new Industrial Road (5,000 north of County Road 33).

In order to evaluate the performance of the network assumed for Alternative I: the Draft General Plan, an analysis of levels of service was undertaken for roadway segments as well as for key intersections under future development conditions. For roadway segments, MINUTP's capabilities were used to perform volume-to-capacity (V/C) calculations for all links in the roadway system, and produce a summary report of V/Cs for the network. It was found that the network assumed for the basic future scenario performed well under future traffic conditions. At the segment level, no links in the system displayed V/C ratios higher than 0.75, indicating that no significant congestion is anticipated with the assumed cross-sections.

At key intersections, future PM peak hour levels of service were estimated using projected future volumes at key intersections along Grant Avenue and Railroad Street, including:

- ◆ Grant Avenue at Railroad Avenue;
- ◆ Grant Avenue at SB I-505 ramps;
- ◆ Grant Avenue at NB I-505 ramps;
- ◆ Grant Avenue at Main Street (East);
- ◆ Grant Avenue at Main Street (West);
- ◆ Grant Avenue at new Industrial Road Extension; and
- ◆ Railroad Street at Main Street.

Each intersection except Railroad Avenue at Main Street was assumed to be signalized. The Railroad/Main intersection was assumed to continue as a four-way STOP sign controlled intersection. All intersections were evaluated using the 1985 Highway Capacity Manual (1985 HCM) planning level methods.

Figure 22 depicts the results of the Level of Service analysis. All intersections are projected to operate at LOS C or better, with the three Grant Avenue intersections east of the Main Street Loop operating at LOS A. This portion of Grant Avenue was assumed to have been widened to four lanes. It should be noted that the methodology used for evaluating the Railroad/Main intersection (a four-way STOP sign controlled intersection) only provides a comparison of actual volumes with threshold levels for LOS C and for Capacity conditions; a LOS B was inferred from the analysis and presented as such for consistency with the other intersections results.

Figure 22
FORECAST PM PEAK HOUR LEVELS OF SERVICE
Winters General Plan EIR

Intersection	Level-of-Service
Grant Avenue at Railroad Street	C
Grant Avenue at SB I-505 Ramps	A
Grant Avenue at NB I-505 Ramps	A
Grant Avenue at East Main Street Loop Road	C
Grant Avenue at West Main Street Loop Road	C
Grant Avenue at Industrial Road Extension	A
Rairoad Avenue at Main Street	B
Source: Wilbur Smith Associates; June 1991.	

IV. TRANSPORTATION AND CIRCULATION

Modified Draft General Plan (Alternative II) Impacts

Model runs were also undertaken for a land use alternative representing a population of 14,000 persons (Alternative II: the Modified Draft General Plan). Two such model runs were prepared, both utilizing the basic future network (no Johnson Road Bridge). **Figure 23** depicts the 14,000 population Modified Draft General Plan. The increase in population density is projected to add approximately 2,000 daily vehicles to the eastern portion of the new Loop Road, and to Grant Avenue east of the Loop Road.

Future levels of service for the Modified Draft General Plan would not be substantially different than those for the Draft General Plan, with the exception that the Grant Avenue intersections with Railroad Street and East Main would be LOS D instead of LOS C in the PM peak hour.

Figure 24 depicts the improvements required to the street network to accommodate the future traffic volumes associated with the Draft General Plan (Alternative I). The same improvements would be sufficient to accommodate the traffic associated with the Modified Draft General Plan (Alternative II). The improvements are listed in **Figure 25**. Each of these improvements has been incorporated into the Circulation Master Plan.

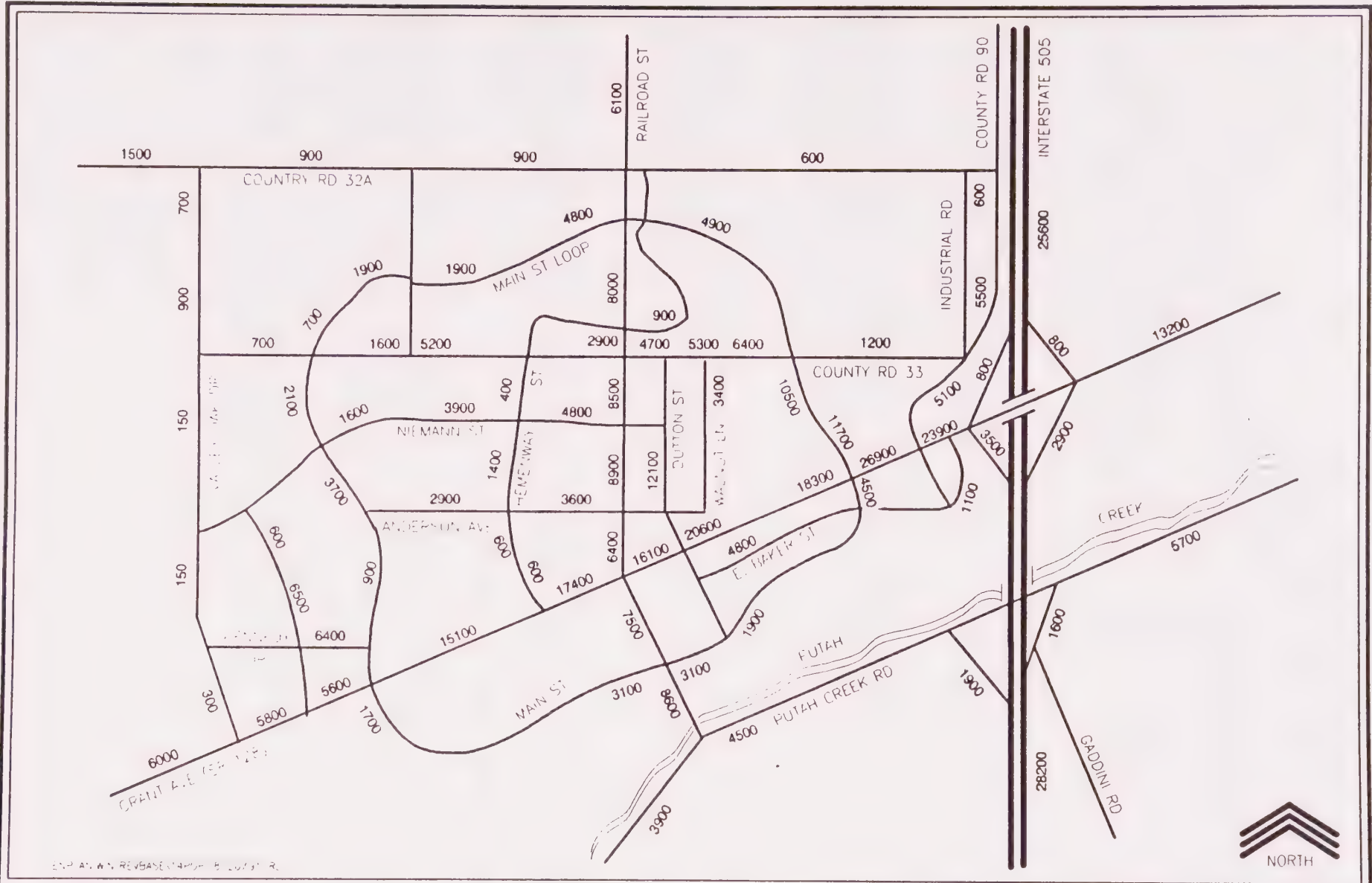
The DGP and Circulation Master Plan provide the basis for roadway improvements which will accommodate the Draft General Plan's designated land uses. The Circulation Master Plan is to be adopted and periodically updated, to reflect development patterns and densities (Implementation Program III.2).

The Circulation Master Plan incorporated into the Draft General Plan program (Alternatives I and II) provides The potential impact of unacceptable congestion would be avoided.

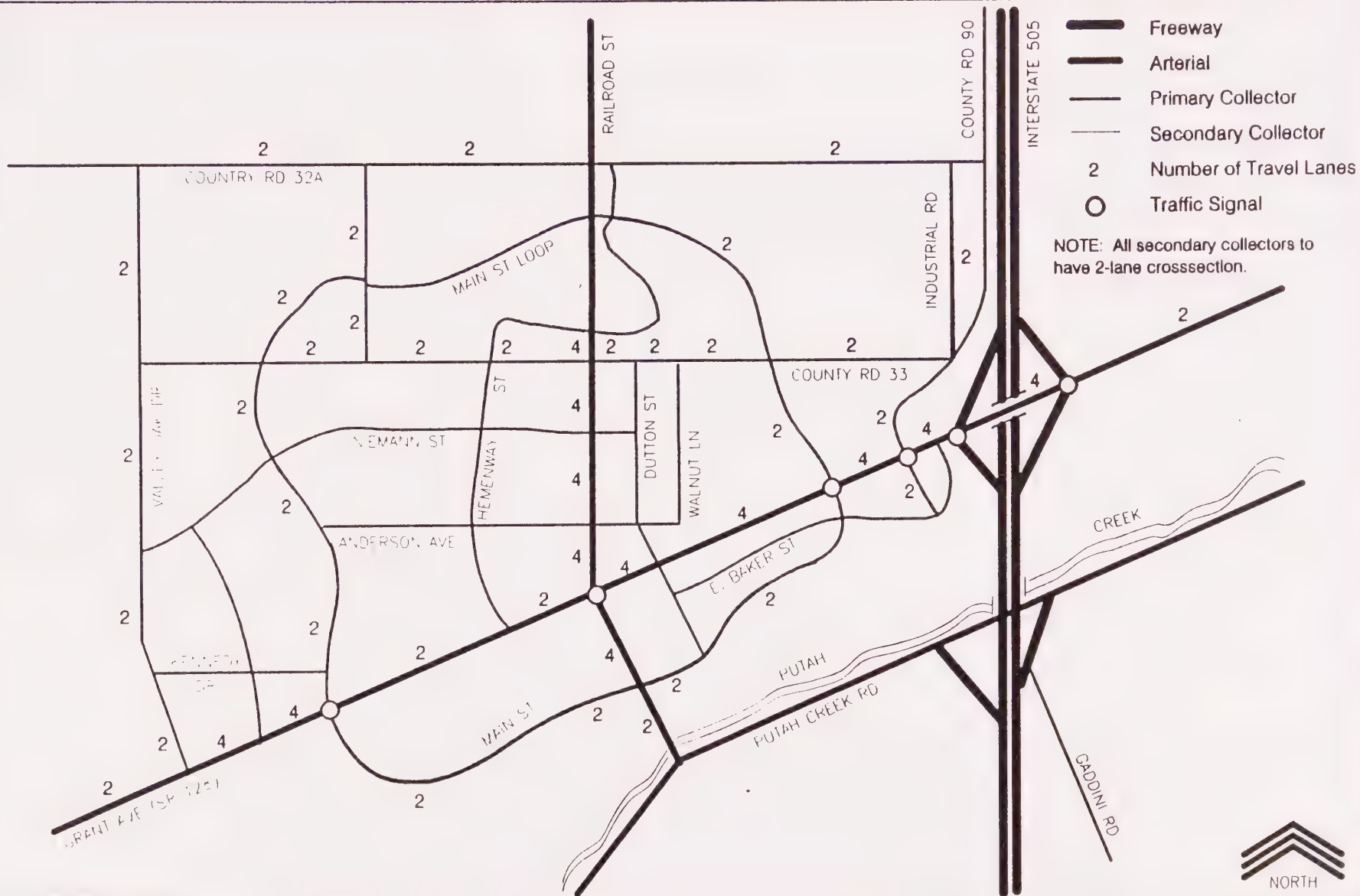
Congestion Management Plan Impacts

Traffic conditions on both Grant Avenue and Railroad Street would not deteriorate to worse than LOS D under either the Draft General Plan or the Modified Draft General Plan. As a result, the City would conform to the Level-of-Service requirements of the Yolo County Congestion Management PlanThe potential impact would be avoided.

The DGP directs the City to adopt measures to comply with the Yolo County CMP, such as a monitoring program, a land use impact analysis plan and a trip reduction ordinance.



FORECAST DAILY TRAFFIC 14,000 POPULATION
Winters General Plan EIR



RECOMMENDED ROADWAY CLASSIFICATIONS AND LANE REQUIREMENTS

Winters General Plan EIR

Figure 25

REQUIRED ROADWAY IMPROVEMENTS

Improvements	Order of Magnitude Cost
Main Street Loop Road	(1)
Road 32A (Road 88 to Road 90)	(1)
Hemenway Street Extension	(1)
Road 33 Extension (to Road 90)	(1)
Valley Oak Drive Extension	(1)
Rebuild Putah Creek Bridge	\$1,000,000
Rebuild Anderson Road	(1)
Rebuild Grant Avenue Dry Creek Bridge	1,700,000
Rebuild Railroad Avenue/Putah Creek	(1)
Rebuild Taylor Street	\$260,000
Widen East Street	\$230,000
Widen Grant Avenue	\$2,600,000
Widen Grant Avenue/I-505 Overcrossing	\$3,000,000
Widen Road 33 West of Railroad	(1)
Construct New Putah Creek Bridge	\$3,500,000 ⁽²⁾
New Traffic Signals (6 at \$125,000)	\$750,000

(1) On-site development improvements.

(2) Not currently in plan

Source: Wilbur Smith Associates; August 1991.

C. MITIGATIONS

No mitigation measures are necessary.

IV. TRANSPORTATION AND CIRCULATION

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V. INFRASTRUCTURE SERVICES AND FACILITIES

A. WATER SUPPLY SYSTEM

1. Setting

Existing Water Supply and System

The City of Winters operates its own water treatment and supply system and relies on groundwater for its domestic water supply. The City's water supply system includes five wells which pump water from an aquifer study area of approximately 50,200 acres in size, which borders the eastern side of the coast range. Groundwater in this study area was evaluated to a depth of 600 feet. For the Winters study area (the urban limit line boundary), the capacity of the ground water storage was determined to be on average about 48,900 acre-feet of water. Average recharge to this storage capacity from irrigation, rainfall and Putah Creek infiltration, in the period from 1961 to 1970, resulted in a net average increase in storage of 5,700 acre-feet per year (Ref. 16, Section Two, page 6).

Groundwater levels in many Sacramento Valley areas have been decreasing generally since the 1940s, but the levels in the Winters area have remained fairly constant. Levels fluctuate seasonally, with the highest levels occurring in spring and the lowest in the fall, following summer time agricultural irrigation pumping.

The City also has Putah Creek underflow water rights (rights to the water that flows in aquifer gravels beneath the creek) of 1.5 cubic feet per second (cfs), which is equivalent to 673 gallons per minute (gpm). The City's rights do not allow use of water directly from the creek.

Surface waters in the vicinity of Winters are currently contracted to other entities in Yolo, Solano, and Napa Counties; therefore, they are unavailable for use by Winters. However, the United States Bureau of Reclamation (USBR) Central Valley Project may be a source of surface water in the future. If water can be obtained from this project, first deliveries would probably be available not sooner than 10 years.

Each of the City's wells are designed to draw about 1,500 gallons per minute. Existing water demand is estimated to be 1.45 million gallons per day (mgd), or approximately 300 gallons per day (gpd) per capita.

Figure 26 shows the existing water supply system within the city and pressure zone locations. The three oldest wells are located in Zone 1. The two remaining wells were added to outlying areas in Zones 4 and 5 as development spread to the north and west.

V. INFRASTRUCTURE SERVICES AND FACILITIES

The system's ability to deliver water during power outages is limited to the capacity of the elevated tanks. The 200,000 gallon storage capacity would provide approximately 3 hours supply under average demand conditions. The pumps are driven by electric motors and there are currently no sources of backup power.

The distribution system is made up of pipes ranging in size from 2 to 10 inches in diameter, and one 12-inch main, which runs down Grant Street. Pipes range in age from 4 to 100 years old. The City plans to replace sections of the system which are 30 to 100 years in age regardless of new proposed developments. Developed parcels along Walnut Lane are served by a single main rather than a looped system. In addition, this area is located further away from its water supply wells than any other area of the city. This has caused wide fluctuations in pressure in this area. A new well is planned in this area and future development will complete loops to serve the area.

In Zone 1, there are several areas in which fire hydrants do not meet the recommended 1,500 gpm for firefighting requirements. In addition, in almost all parts of the existing water supply system, pressures below the required residual of 20 psi were found. In the past, a fire tanker truck has made up for these deficiencies.

Existing water demand estimates are based on the City's records (which were not available prior to May 1989) and long-term records from the Cities of Davis and Folsom. The current water demands are as follows:

- ◆ Average Annual Demand - 1,010 gpm or about 1,630 acre feet per year.
- ◆ Maximum Day Demand - 2,020 gpm.
- ◆ Maximum Day Demand Plus 1,500 gpm Fireflow - 3,520 gpm.
- ◆ Maximum Day Demand Plus 3,000 gpm Fireflow - 5,020 gpm.
- ◆ Peak-Hour Demand - 3,535 gpm.

2. Impacts

Local Impacts

Future water demands are based on future land use designations indicated in the City of Winters Draft General Plan Alternative I land use diagram. This provides for the development of new areas and includes the infill of areas in the currently developed portions of the City. Future demands (including the existing system) in the year 2010 are estimated as follows for implementation of Alternative I (12,500 population):

- ◆ Average Annual Demand - 3,120 gpm or 5,030 acre-feet per year.

V. INFRASTRUCTURE SERVICES AND FACILITIES

- ◆ Maximum Day Demand - 6,240 gpm.
- ◆ Maximum Day Demand Plus 1,500 gpm Fireflow - 7,740 gpm.
- ◆ Maximum Day Demand Plus 3,000 gpm Fireflow - 9,240 gpm.
- ◆ Peak-Hour Demand - 10,920 gpm.

Increases in water demand for the City of Winters in the year 2010 would entail a net increase in groundwater pumping of about 1,030 acre-feet per year to a total of 5,030 acre-feet-per-year. The net increase in ground water pumpage was estimated by determining the amount of water needed to serve the future development and then subtracting the amount of ground water currently used by the city and used to cultivate farm lands that will be converted to urban uses within the 20-year sphere of influence.

The future demands for the modified Draft General Plan (Alternative II) for a population of 14,000 are estimated as follows:

- ◆ Average Annual Demand - 3,160 gpm or 5,100 acre-feet per year.
- ◆ Maximum Day Demand - 6,320 gpm.
- ◆ Maximum Day Demand Plus 1,500 gpm Fireflow - 7,820 gpm.
- ◆ Maximum Day Demand Plus 3,000 gpm Fireflow - 9,320 gpm.
- ◆ Peak-Hour Demand - 11,060 gpm.

An increase in population to 14,000 results in a net increase in groundwater pumping of 1,100 acre-feet per year to a total of 5,100 acre-feet per year. An increase in population does not result in a one to one increase in water demand. As residential densities increase, water use tends to shift from outdoor (landscape) uses to indoor use. The components of the water system, number of wells, size of pipe, etc., remain about the same for both alternatives.

While additional City wells are expected to provide sufficient water for projected growth for both alternatives, the City is interested in exploring available alternatives to well water. Accordingly, the City has recently joined with other municipal water suppliers in Yolo County to share in funding a study of methods of securing access to surface water.

There are no significant water system impacts as a result of the anticipated increase in population under either Alternative I or Alternative II. The groundwater study in the Water Master Plan, indicates that there is adequate groundwater to supply the City of Winters beyond the year 2010 (Ref. 16, Section Two, page 15). **There would not be a significant impact of an inadequate water supply.**

Cumulative Impact

Concerns over groundwater depletion in the Sacramento and Central Valley regions, and water supply in the state as a whole requires that each city and jurisdiction engage in efforts to reduce water consumption whenever possible to avoid significant cumulative impacts.

For these and other reasons, the Water System Master Plan of the 1991 General Plan program incorporates an Urban Water Management Plan, which defines water conservation strategies and alternatives. On the basis of the evidence of a sufficient groundwater supply for the city, the "Moderate" alternative is adopted as part of the Master Plan, which includes meter installation, a low-flow plumbing ordinance, retrofitting older plumbing fixtures, watering schedules, and other means of water conservation. These measures would reduce the potential for cumulative regional water supply impacts.

3. Mitigation Measures

No mitigation measures are necessary. However, to address potential cumulative regional groundwater impacts, the City should institute monitoring of groundwater levels to ensure that groundwater overdraft is not taking place. If groundwater levels are found to be dropping, then the Aggressive Program in the Water System Master Plan should be implemented, which has a 29 percent water savings projected for Alternative I and 33 percent for Alternative II. A 29 percent water savings equals a net decrease in groundwater pumping of 1,460 acre-feet for Alternative I. A 33 percent reduction is equivalent to a net decrease of 1,680 acre-feet for Alternative II in 2010. Water level monitoring should take place in the spring and fall in conjunction with the state Department of Water Resources monitoring program.

B. SEWER SYSTEM

1. Setting

Existing Treatment Plant Capacity

The City of Winters sewage collection system, as illustrated in **Figure 27**, currently consists of approximately 11 miles of main sewer line ranging in size from 6 to 18 inches in diameter (Figure 1). Sewage generated within the city flows by gravity through an 18-inch pipe to the City's former treatment plant located near Putah Creek at the foot of East Street. The former treatment plant, functions simply as a collection point and pump station. The former pump clarifier acts as a temporary storage tank with a capacity of 60,000 gallons. At current flows this represents about a three-hour detention capability.

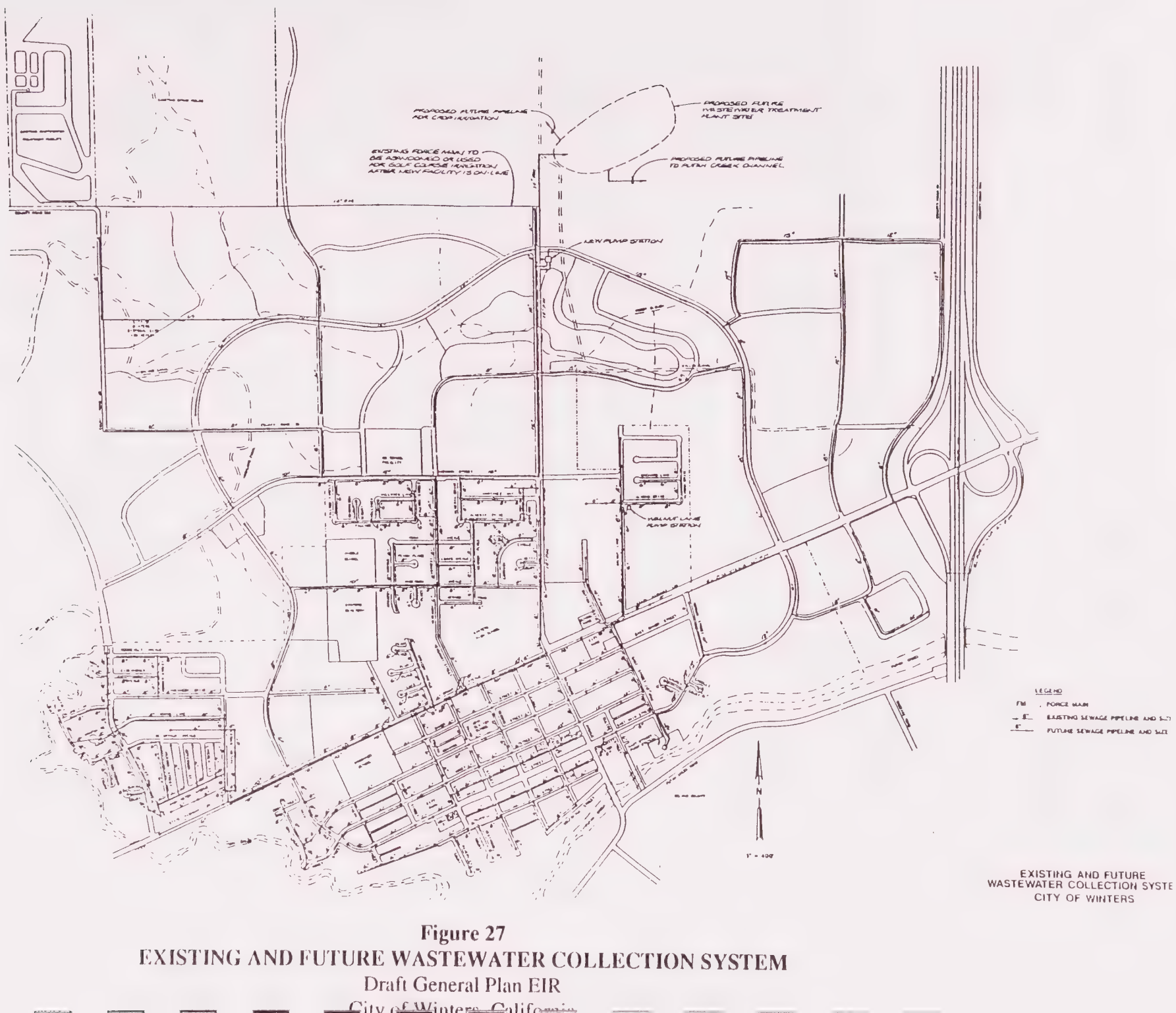


Figure 27
EXISTING AND FUTURE WASTEWATER COLLECTION SYSTEM
 Draft General Plan EIR
 City of Winters, California

V. INFRASTRUCTURE SERVICES AND FACILITIES

From the old treatment plant the sewage is pumped north through a 14-inch diameter force main to the City's treatment plant, near the junction of County Road 88 and County Road 32. The system utilizes three pumps. The first pump is rated at 475 gpm and is used for low flows, a second pump is rated at 940 gpm and is used for peak hour flows. The third pump, is also rated at 940 gpm, and is used on a standby basis.

The present sewage treatment facilities located northwest of the city were completed in 1980 and have the capacity to handle a population of approximately 5,800. The treatment plant is a regional facility which serves the general Winters vicinity. Sewage from the El Rio Villa Housing Authority facility is pumped west to join the City's 18-inch gravity main.

The existing wastewater treatment plant consists of four aeration basins, one polishing pond, three storage ponds, and a 140 acre reuse area. Following addition of chlorine, wastewater is sprayed on to the pastureland in the reuse area by large-nozzle sprinklers. The capacity of the treatment plant is 1.0 mgd, assuming dry-weather conditions. However, the capacity of the plant is impaired by wet weather to as little as 0.7 mgd. Accordingly, 0.7 mgd is the assumed treatment capacity.

The water balance for the existing facility is based on a 10-year return rainfall, irrigation of a pasture crop, evaporation and infiltration of 5 and 15 feet per year, respectively. Ponds 1 and 2 are operating at full capacity, Pond 3 is operating at half capacity, and half of the polishing pond is used for storage. Pond 3 is unable to be operated at full capacity until repairs are completed.

With these assumptions, the estimated capacity of the existing wastewater facilities is about 0.7 mgd with the storage ponds being the limiting component. A capacity of 0.7 mgd corresponds to a population of about 5,800.

2. Impacts

Estimate of Future Waste Loads

Wastewater flow rates for a treatment plant are typically determined using unit flow rates for each land use classification or for each person in the community. A unit flow rate of 120 gallons per capita per day (gpcd) was used. A flow rate of 100 gpcd was allocated to residential and commercial areas, while 20 gpcd was allocated for industrial uses.

The proposed future collection system would be composed of about 62,800 feet of new gravity sewer pipe, one pump station, and a force main. The master plan collection system does not in-

V. INFRASTRUCTURE SERVICES AND FACILITIES

clude house laterals or sewers within individual developments. **Figure 27** shows the proposed layout of the wastewater collection system.

Flow rates in a wastewater collection system are determined by land use and peaking factors. Peaking factors are the ratio of the peak flow to the average flow and are estimated to vary from 2.3 to 4.0 for the study area.

Flow rates for each zoning classification are shown in **Figure 28**.

All growth alternatives assume that the existing facilities will be used to accommodate the planned growth of Winters until the population reaches about 5,800. At that time, Pond No. 3 should be repaired and a new 40-acre-foot pond should be online to accommodate additional growth up to a population of about 6,600. When that capacity is reached, conversion to a new secondary-level treatment facility will be made.

Figure 28

SEWER COLLECTION SYSTEM FLOW RATES.

Draft General Plan EIR
City of Winters, California

<u>Land Classification</u>	<u>Flow Rates</u>
Residential	2,000 gpad ¹
Schools	
Elementary	22,000 gpd ²
Middle	30,000 gpd
High	34,000 gpd
Parks	200 gpad ³
Commercial	2,500 gpad ³
Industrial	3,000 gpad ³

¹ Gallons per acre per day.

² Gallons per day per school.

³ Commercial and industrial rates are based on net acreage (80 percent of gross acres). All other classifications are based on gross acres. Gross acreage includes streets.

Sewer system impacts related to the anticipated 12,500 in population relate to the need to provide an additional sewage treatment plant to accommodate the increased population. A new sewage treatment plant capable of accommodating the anticipated population would require the ability to process approximately 1.5 million gallons-per-day. Improvements to the existing sewage treatment facility will allow the City to accommodate future growth until the new treatment facility is

V. INFRASTRUCTURE SERVICES AND FACILITIES

online. A subsequent environmental review of the new wastewater treatment plant will be required.

Development of the needed treatment plant in order to accommodate the required 1.5 million gallons-per-day for Alternative I, and 1.7 million gallons-per-day for Alternative II, sewage flow will ensure that sewer system impacts are reduced to a less than significant level. The recommended wastewater treatment plant for both Alternatives is an activated sludge process that will provide a filtered, disinfected secondary effluent. This level of treatment allows for flexibility in methods of beneficial reuse and is easily enlarged or upgraded to accommodate the changing needs of the City.

The Draft Sewer System Master Plan, dated October 21, 1991, prepared by CH₂M HILL, as part of the Project, addresses both the necessary improvements to the existing system and the facilities required to accommodate future development.

Impacts on the sewer system would be reduced to a less than significant level for both Alternatives I and II.

3. Mitigation Measures

No mitigation measures are necessary.

C. STORM DRAINAGE SYSTEM

1. Setting

The existing storm drainage system consists of 17 main lines installed at various times over the past 100 years. The majority of the storm drains, which range in size from 6 to 60 inches in diameter, are made of reinforced concrete pipe (RCP), with several short segments constructed of plastic (PVC) and corrugated metal pipe (CMP). All storm drainage lines drain to Putah Creek and Dry Creek, which serve as outlets for storm drainage. The layout of the existing system is shown in **Figure 29**.

Since the completion of Monticello Dam in 1957, flooding of Putah Creek has been virtually eliminated. The lowered water surface elevations in Putah Creek have also resulted in a lowering of flood water elevations in Dry Creek near the City of Winters. Both of these creeks have the capacity to contain the 500-year flood within their banks (SCS, 1976).

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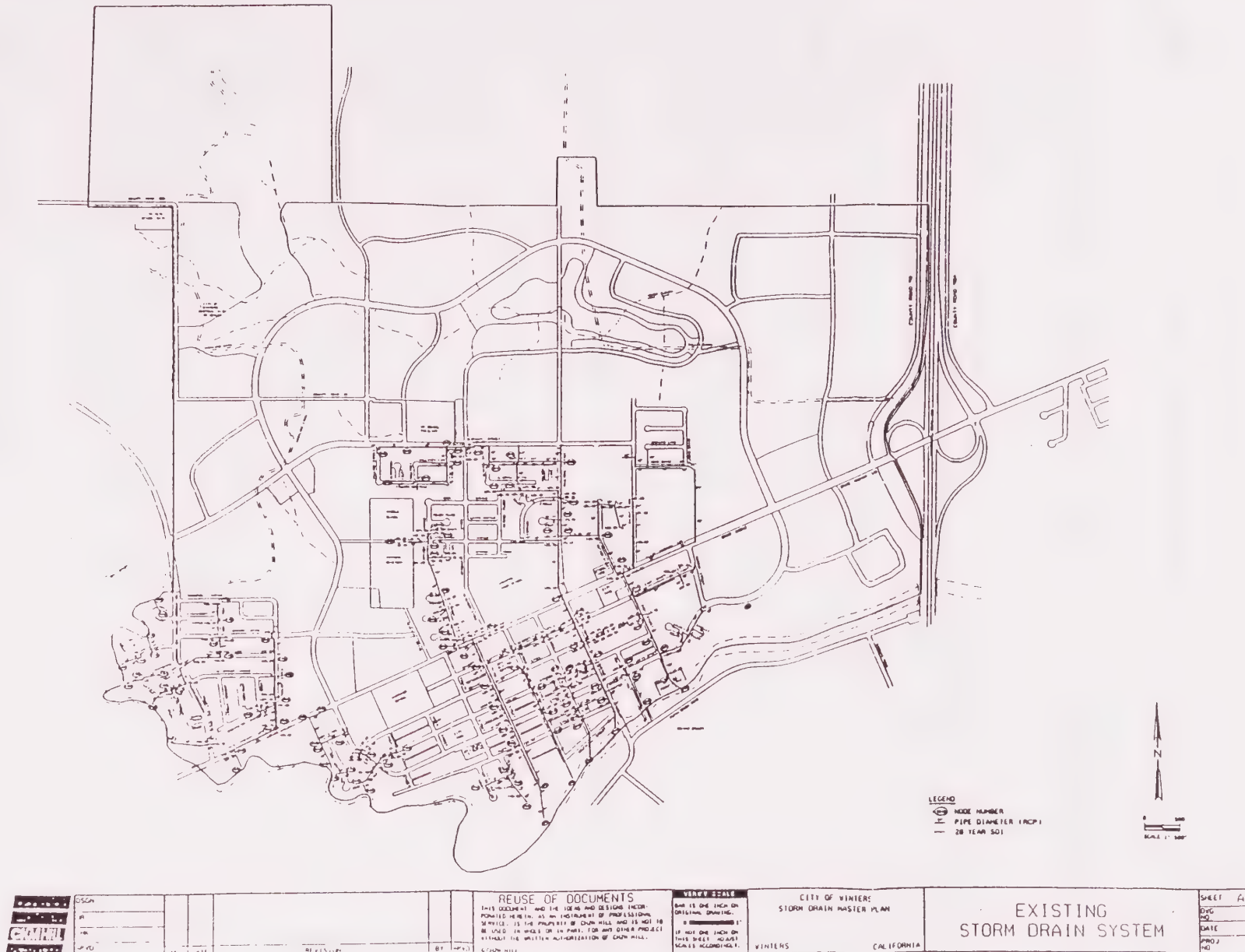


Figure 29
EXISTING STORM DRAINAGE SYSTEM
 Draft General Plan EIR
 City of Winters, California

V. INFRASTRUCTURE SERVICES AND FACILITIES

Most flooding problems in the vicinity of the City have been caused in part by impeded flow in Moody and Chickahominy Sloughs. Limited channel capacity and culvert capacity at County Road 89 and I-505 are the main contributors to flooding in Moody Slough. Several reaches of Chickahominy Slough are also undersized. The channel has been straightened to a west-east path, which is not directly downslope. As a result, when the channel overtops, the flows move southeasterly away from the channel until they hit the elevated I-505, which sends the flows south toward Winters.

The Winters Canal is another source of flood water to the study area. The canal, which is owned and operated by the Yolo County Flood Control and Water Conservation District, transports water from Cache Creek along the base of the Coast Range foothills for irrigation. The canal terminates at Chapman Reservoir, just north of the City of Winters. Outflows from Chapman Reservoir enter Willow Canal, flow south toward Winters, then east along Putah Creek to the City of Davis.

The canals cross a number of natural drainages. Following the irrigation season, wasteways are opened at the major drainages, and gates in the canals are closed to force winter flood waters out the wasteways into the natural drainages. One such wasteway exists about 3 miles north of Chickahominy Slough at Union School Slough. Over the next 3 miles, the canal picks up flood waters from minor drainages to the west and discharges to Chickahominy Slough. The gate at the canal siphon under Chickahominy Slough is closed in the winter so the canal is dry immediately south. It then intercepts minor drainages over the next mile until it flows into Chapman Reservoir. The Willow Canal is similarly wasted to Moody Slough in the winter.

2. Impacts

A Storm Drain Master Plan has been developed as part of the overall Project and provides an inventory of the drainage system requirements and facilities to accommodate planned growth within the community of Winters until the year 2010. The watershed contributing to drainage problems in the Winters area is illustrated in **Figure 30**. The report was divided into two main topics: onsite drainage and regional flood control. In this case, onsite drainage refers to storm drainage originating on or immediately to the west of the 20-year Sphere of Influence (SOI) that would be captured by the City's system of storm drain pipes. Regional flood control refers to management of flood waters approaching the 20-year SOI from the north and control of outflows from onsite drainage facilities.

The proposed Draft General Plan (Alternative I) defines the basis for the Storm Drain Master Plan, in which projected growth for the City of Winters is indicated to be to the north.

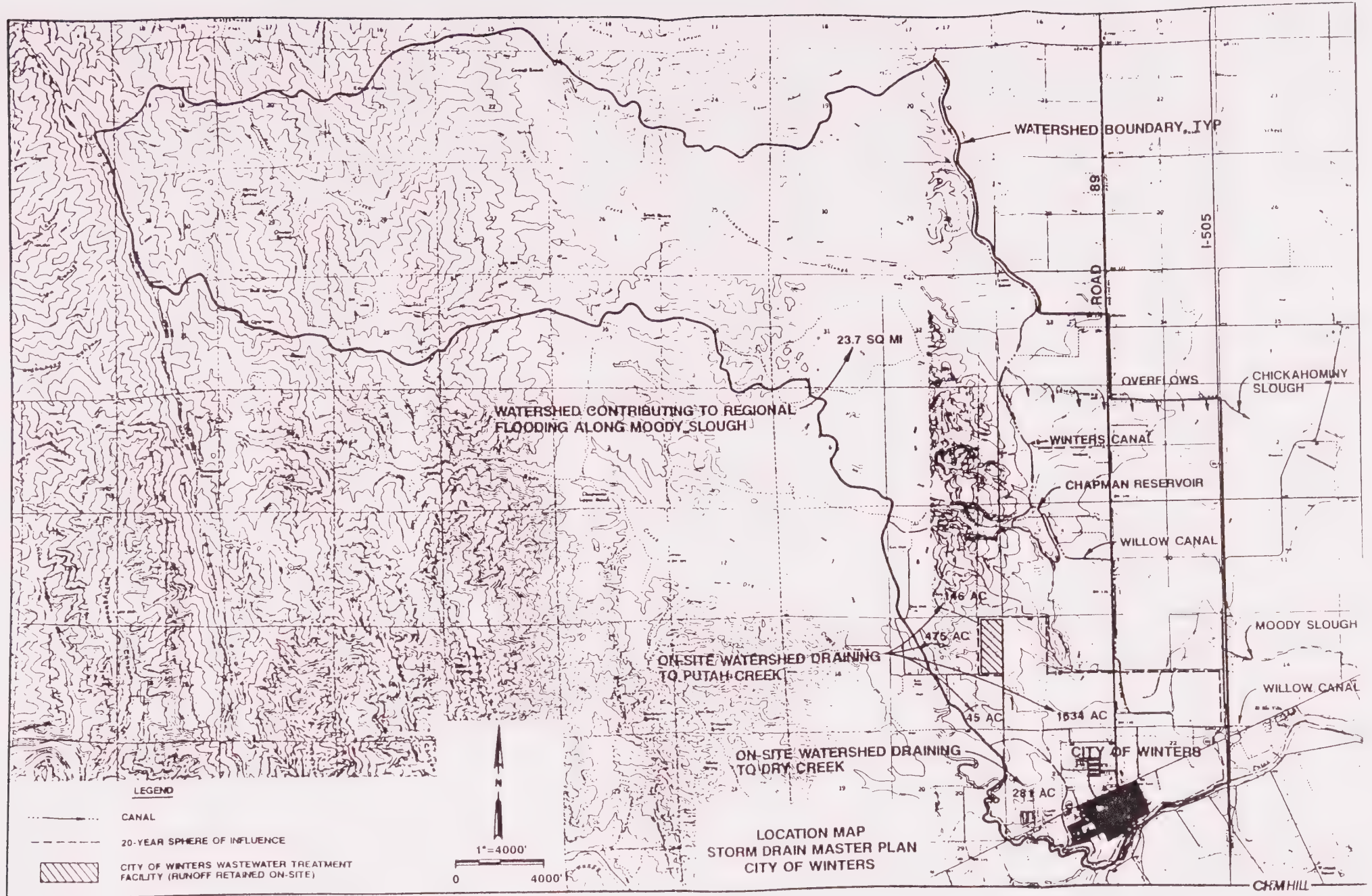


Figure 30
LOCATION MAP: STORM DRAINAGE MASTER PLAN
 Draft General Plan EIR
 City of Winters, California

V. INFRASTRUCTURE SERVICES AND FACILITIES

Construction of structures within these areas can only be permitted if first floor elevations are at least 1 foot higher than the 100-year flood elevations, or the area must be removed from the 100-year flood plain by constructing some sort of flood control project. For either scenario, construction must not raise flood elevations upstream by more than 1 foot, according to FEMA criteria. Many local agencies are requiring criteria more strict than the FEMA criteria.

A more conservative criterion is avoidance of negative impacts to property owners both upstream and downstream of a project. Negative impacts to the existing facilities could include increased ponding upstream or increased flows downstream due to elimination of flood storage. If the area is to be removed from the regulatory flood plain, a letter of map revision (LOMR) is required from FEMA.

Onsite Drainage Impacts

According to the Storm Drainage Master Plan, 9 of the 17 main storm drains appear to be undersized and need to be replaced in order to provide a 10-year stormflow capacity within the existing city. Total length of replacement pipe is approximately 12,900 feet of 18 to 42-inch pipe, as shown in **Figure 31**.

Regional Impacts

Much of the City of Winters 20-year SOI lies within the designated 100-year flood plain. This flood plain is included in the Federal Emergency Management Agency (FEMA) Flood Insurance Study (FEMA 1980). Storm drainage impacts associated with the anticipated population of 12,500 would include new development (approximately 50%) taking place within this area (100-year flood plain), as shown within **Figure 32**.

Onsite Measures

The Storm Drainage Master Plan has identified a regional flood control project and related drainage system improvements which will enable new growth to occur within the area now defined as part of the 100-year flood plain. The major features of the Storm Drainage Master Plan are:

- ◆ Construction of the Winters Detention Pond, with an outfall to the Northern Stormwater Outfall.
- ◆ Construction of a Northern Stormwater Reservoir and outfall to Putah Creek.
- ◆ Relocation of Willow Canal.

Undeveloped areas located outside of the 100-year flood plain will be relieved of any storm drainage impacts by providing storm drains to be routed along major roads, draining into the Winters Detention Pond. Overflow from the Pond would be transported by pipeline or canal to Putah Creek. Several small areas on the west side of the city would drain to Dry Creek.

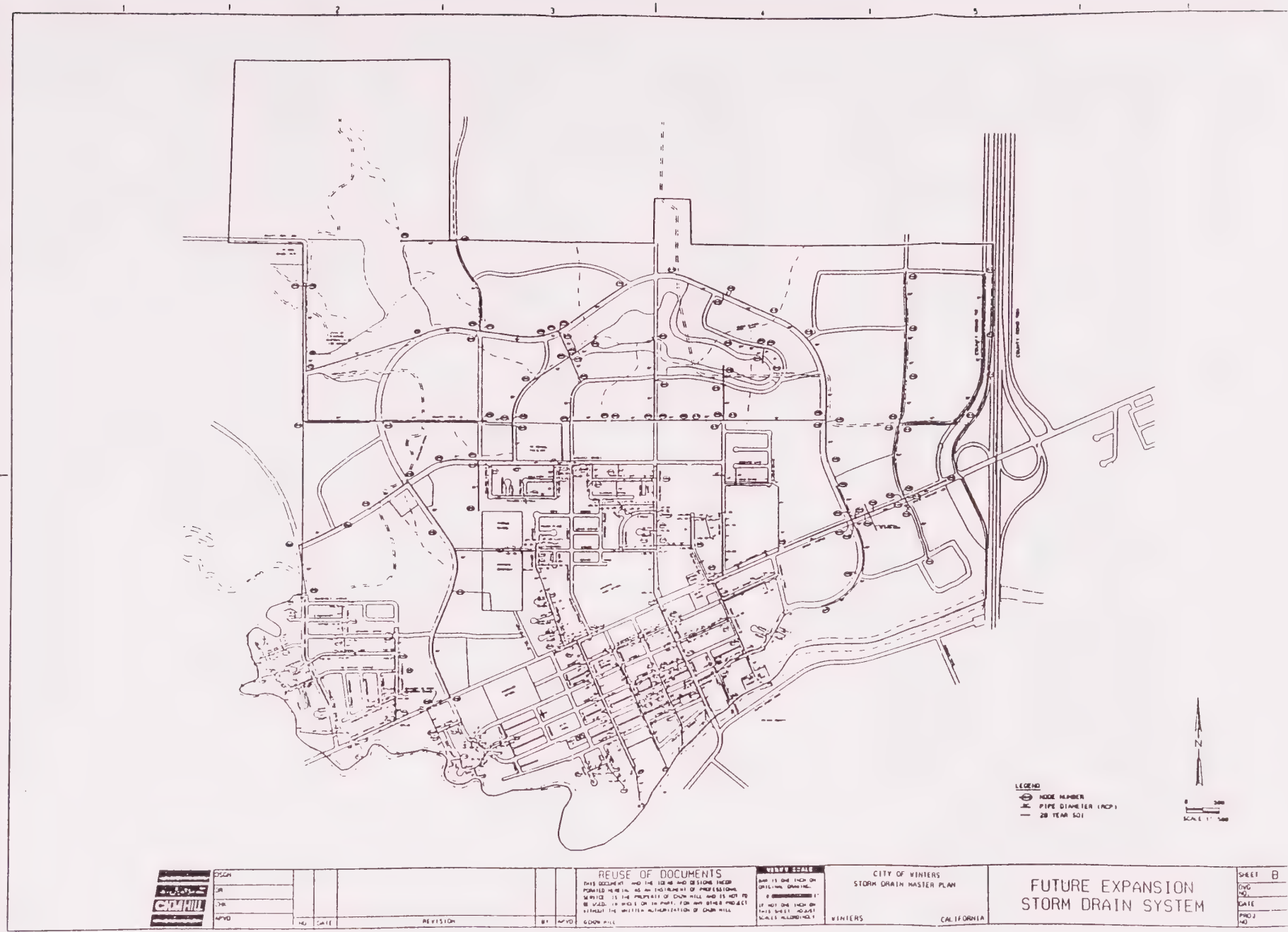
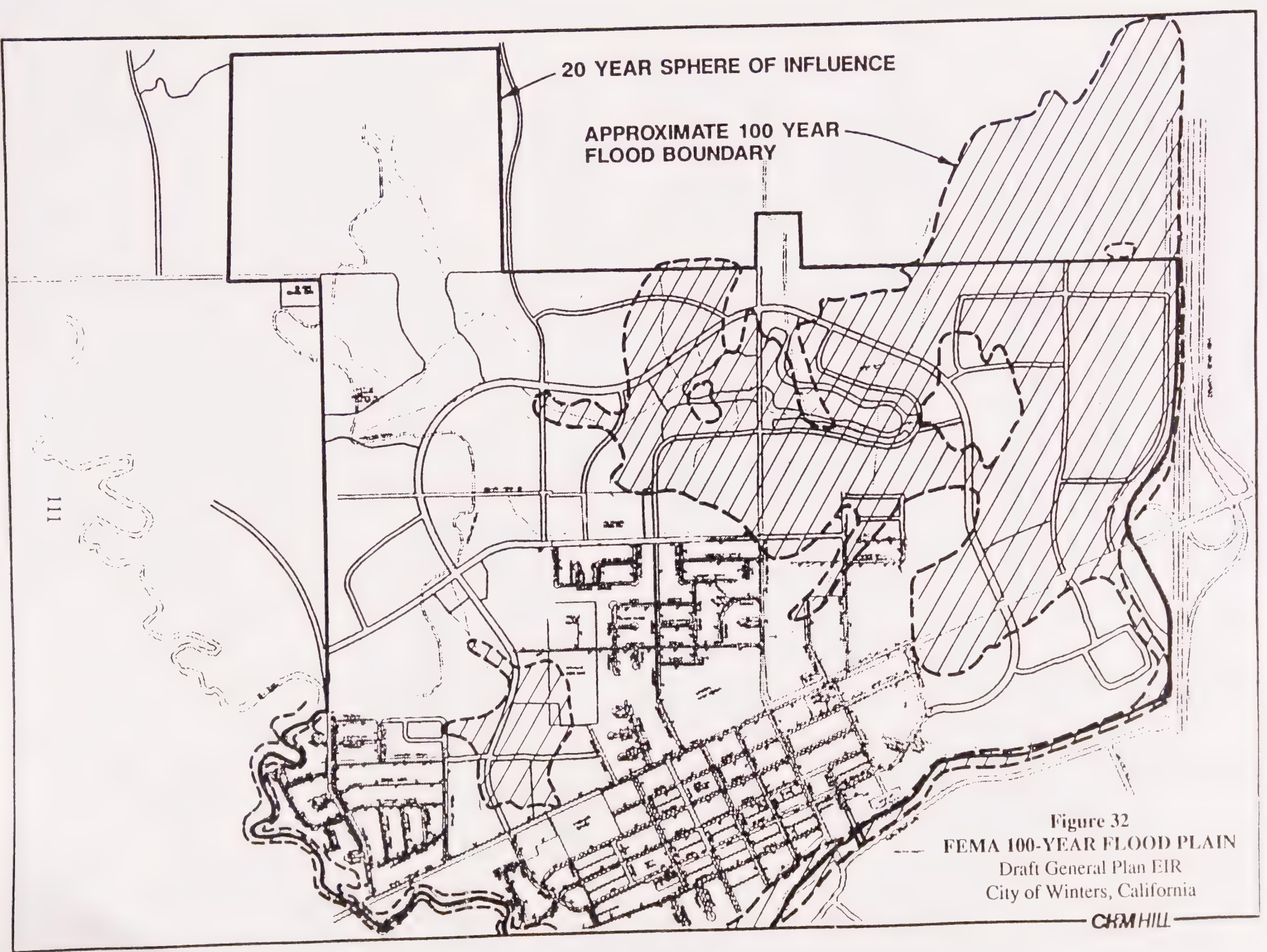


Figure 31
FUTURE EXPANSION SYSTEM: STORM DRAINAGE MASTER PLAN
Draft General Plan EIR
City of Winters, California



20 YEAR SPHERE OF INFLUENCE

APPROXIMATE 100 YEAR
FLOOD BOUNDARY

Figure 32
FEMA 100-YEAR FLOOD PLAIN
Draft General Plan EIR
City of Winters, California

CHM HILL

V. INFRASTRUCTURE SERVICES AND FACILITIES

Regional Measures

Regional flood control alternatives have been formulated based on discussions with City staff, Yolo County Flood Control and Water Conservation District (YCFC&WCD) staff, local developers, and review of previous studies. The criteria for alternatives were to provide 100-year flood protection, and to avoid or mitigate negative impacts to property owners both upstream and downstream of the City.

Potential impacts to the storm drainage system will be mitigated to a less than significant level by providing regional flood control improvements to remove the 20-year SOI from the 100-year flood plain (see **Figure 33**). Removal of the 20-year SOI from the regulatory 100-year flood plain would allow the City to revise its current FEMA maps. Regional flood control improvements include the Northern Stormwater Diversion Channel, Reservoir, and Outfall, and the Winters Detention Pond and Outfall.

The Northern Stormwater system would intercept flows from north of the 20-year SOI and convey them easterly to I-505, where they would be stored briefly, then discharged both to Moody Slough and to a new outfall to Putah Creek. The Winters Detention Pond would receive storm runoff from the onsite collection system, as well as overland flows during floods greater than the 10-year flood. Runoff would be stored briefly, then discharged through a new outfall to the Northern Stormwater Outfall, which discharges to Putah Creek.

The flood control project defined by the Storm Drainage Master Plan, although it does not reduce or alleviate flooding which occurs on land north of the City's Sphere of Influence, would not add to the problem. The changes would not have a significant effect on these upstream or downstream interests (the specific areas affected would be acquired by the City), or result in increased flows in Moody and Chickahominy Sloughs east of I-505.

The Draft General Plan (including both Alternatives I and II) would avoid potential storm drainage impacts and would not have significant regional drainage impacts.

3. Mitigation Measures

No mitigation measures are necessary.

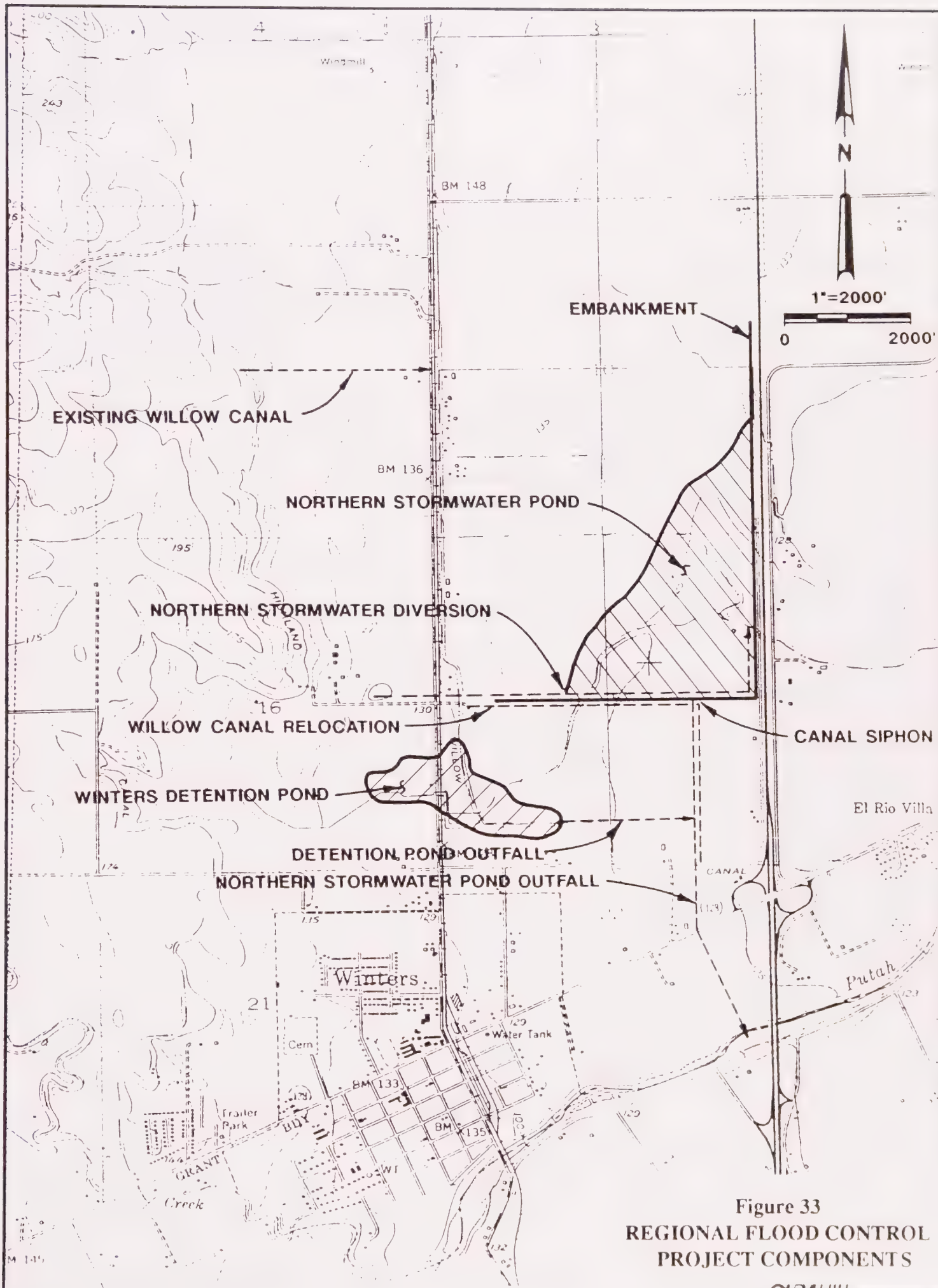


Figure 33
REGIONAL FLOOD CONTROL
PROJECT COMPONENTS

V. INFRASTRUCTURE SERVICES AND FACILITIES

D. SOLID WASTE

1. Setting

The City of Winters conducts its own refuse collection and disposal service. Presently, the City uses one truck with an 11-cubic-yard capacity. It hauls up to 10 tons of municipal garbage daily (except weekends) to the Yolo County Central Landfill (YCCL) near Woodland, adjacent to the intersection of County Roads 28H and 104. The 720-acre site is operated as a Class III sanitary landfill and incorporates separation and resource recovery features. According to the Yolo County Solid Waste Management Plan, the landfill site has a capacity of 18 million tons. Opened in 1975, the site is estimated to reach capacity by the year 2030, assuming that 30 percent of the waste will be received from Sacramento county, and that the ultimate 50 percent recycling goal mandated by the State (AB 939, the "Integrated Solid Waste Program") is achieved by the year 2000. YCCL receives waste from Sacramento, Woodland, West Sacramento, Capay Valley, Davis, and parts of Solano county, as well as from Winters. Winters presently accounts for only 1 percent of refuse received at the landfill (Ref. 58, p. 60).

The California Integrated Solid Waste Act of 1989 requires each city in the state to prepare a "Source Reduction and Recycling Element" (SRRE), which is compatible with, and can be adopted into a county Integrated Waste Management Plan (IWMP). The objective of the legislation is the reduction of landfill disposal tonnage by 25 percent by 1995, and by 50 percent by 2000. The City has prepared a Draft SRRE which will meet this requirement, and which is under review by Yolo County.

The city's overall waste generation has been steadily increasing. From July, 1986 to July of 1987, the City reported 2,179 tons of refuse collected, while during the following fiscal year, 2,649 tons were collected. Between July 1988 and March 1989, a total of 1,943 tons were hauled to YCCL. The hauling volume for the fiscal year 1989-1990 was estimated to be in excess of 2,900 tons.

With a 1990 population of 4,639 persons (U.S. Census), 3,000 tons of waste, for example, would be equivalent to about 0.63 tons of waste per person per year, which is substantially less than the common standard used for projecting solid waste generation of 1.65 tons per person per year. This may be attributable to individuals who haul their own waste to a facility such as the YCCL, recycle materials or reduce their household waste by other means. Another factor in Winters which would substantially limit waste generation, is the relatively small amount of commercial development in the city.

V. INFRASTRUCTURE SERVICES AND FACILITIES

2. Impacts

The development of new residential, commercial and industrial uses in the city of Winters will result in a potentially significant increase in the amount of solid waste generated by the city, and would require the acquisition of additional garbage trucks by the city. A failure to effectively manage the generation of solid waste, and to meet the state standard of a 25 percent waste reduction by 1995, and 50 percent reduction by 2000, or to provide sufficient vehicles or other equipment for waste hauling, would be a significant, adverse impact.

A common waste-generation factor of 1.65 tons per person per year is used in projecting future needs for waste hauling. In comparison with the current experience in Winters, this appears to be very conservative and appropriate for use in evaluating the Project. It may also be more representative of newer residents, or compensate for anticipated increases in commercial and industrial waste generation in Winters. The projected population increase (to a total population of 12,500) of about 7,900 persons which the proposed Draft General Plan would accommodate, would yield an increment of 13,035 tons of refuse per year at buildout over and above current levels. The total amount of solid waste expected to be generated by new development would increase the amount of municipal waste generated in the 1989-1990 fiscal year by a factor of about 4.5 assuming no increase in resource recovery or recycling beyond current levels.

Refuse pickup service for the Planning Area at full buildout would require the purchase of at least four or five new trucks and the addition of four to eight new personnel. No developer fees at the present time would be assessed to cover the potential capital costs of these services, which would exceed \$1.2 million, or the increased labor and administrative costs of \$200,000 per year or more. Service costs would be recovered from new and increased user charges. Alternatively, services could be contracted out to a private disposal company.

The Modified Draft General Plan would accommodate a moderately higher population of about 14,000 persons by the year 2010, representing an increase of about 9,400 persons. On the basis of the conservative factor of 1.65 tons of waste per person per year, up to 15,510 tons could be generated in the city by the new residents, over five times the quantity which was estimated to have been hauled in the 1989-1990 fiscal year.

The Public Facilities and Services Element of the Draft General Plan (also applicable to the Modified Draft General Plan, Alternative II) directs the City to institute recycling and waste reduction programs in order to meet the state legal requirements for waste reduction (IV.E.1). In addition, the City will adopt a Source Reduction and Recycling Element to be submitted to Yolo County (Implementation Program IV.10).

The Draft General Plan and the Modified DGP would prevent a significant impact on solid waste generation.

V. INFRASTRUCTURE SERVICES AND FACILITIES

3. Mitigation Measures

No mitigation measures are necessary.

VI. EMERGENCY FACILITIES AND SERVICES

A. FIRE PROTECTION

1. Setting

Winters does not have a City fire department, but instead contracts with the Winters Fire Protection District. The Fire District is headquartered in Winters and serves the city and the surrounding unincorporated area, with an overall service area of about 90 square miles. The District receives 44 percent of the City's ad valorem tax to pay for services to the City area and the balance of its budget comes from Yolo County. The District responded to 500 service calls in the most recent one-year period.

Existing fire fighting equipment reflects the need of the District to fight both structural fires within the city and wildland fires in the surrounding territory. The Fire District also normally provides first response on emergencies. Available equipment is listed below, including pumps (with capacity in gallons per minute - GPM) and tank capacity:

- ◆ 5 ton Ford, 500 GPM pump, 1,000 gallon tank
- ◆ 1965 White Super Mustang, 500 GPM pump, 1,000 gallon tank
- ◆ 1971 5 ton International Vanpelt, 1000 GPM pump, 500 gallon tank
- ◆ 1954 5 ton MGC, 1,000 GPM pump, 500 gallon tank
- ◆ 1967 5 ton Chevrolet Grass Engine, 150 and 350 pumps, 500 gallon tank
- ◆ 1966 5 ton Chevrolet Grass Engine, 150 and 350 pumps, 500 gallon tank
- ◆ 1968 1-1/4 ton Jeep Brush unit, 65 GPM pump, 200 gallon tank
- ◆ 1968 1-1/4 ton Jeep Brush unit, 65 GPM pump, 200 gallon tank
- ◆ 1954 Fomite Lafrance 85 foot aerial truck
- ◆ 1990 3/4 ton Ford 4x4, 65 GPM pump, 90 gallon tank
- ◆ 1958 2-1/2 ton Reo, 90 GPM pump, 1,200 gallon tank
- ◆ 1971 International tractor and 1955 4,000 gallon tank trailer, 500 GPM pump
- ◆ 1970 1 ton Chevrolet rescue unit and rescue equipment
- ◆ 1974 1 ton Ford Type 2 BLS ambulance

Staffing consists of five paid staff (Chief, Deputy Chief, two Captains and a secretary), and 26 trained volunteers. Performance of fire districts is rated by the ISO (Insurance Services Office) according to a scale ranging from 1 to 10, with a rating of 1 representing the best level of protection, and 10 indicating an absence of any protection. Major criteria used for the ISO rating include: fire alarm communication (i.e., dispatch capabilities; fire department equipment; on-duty personnel and training competency, and water supply). The District's ISO rating is 8 for the District, and 6 for the city area. The District responds to calls for structural, grass, and vegetation fires, and to calls for medical aid, but cannot provide fire protection for buildings over 45 feet in height or for heavy industrial and hazardous material fires.

VI. EMERGENCY FACILITIES AND SERVICES

Standards for new development are imposed by the District, so that the City's insurance rating can be maintained or improved. Consequently, all new residential development must be able to provide water flow of at least 1,000 gallons per minute and all industrial uses must provide 1,500 gallons per minute. Other requirements for new development include the following:

- ◆ Fire hydrant spacing shall be 300 feet.
- ◆ Pavement width shall be 20 feet for fire roads, and 20 feet for multi-use roads.
- ◆ Vertical clearance shall be 13 feet, 6 inches.
- ◆ Turning radius shall be 50 feet.
- ◆ All buildings shall have noncombustible roofing.
- ◆ All buildings 6,000 square feet or larger shall have sprinklers.
- ◆ All surface roads shall be in place prior to any construction taking place.
- ◆ All fire protection systems, including roadways, hydrants, and sufficient emergency equipment shall be in place and tested prior to construction.
- ◆ Fifty percent of all wells shall have a motor-generated backup.

The Fire District has projected its population within its service area for the year 2000 at 15,000 to 18,000 persons. Fire protection will become increasingly difficult in the future because of restrictions due to staffing and the age of the equipment.

2. Impacts

Urban development within the Planning Area for the Project which is not consistent with the standards of the Winters Fire Protection District, or which does not contribute a proportionate share of the cost of providing expanded fire protection services, would represent a significant, adverse impact. Provision for new or expanded Fire District facilities is also necessary to avoid a significant decrease in the level of fire protection service.

The proposed Draft General Plan (Alternative I) will result in a steady increase in the population of Winters and its developed area, including residential, commercial, industrial and other uses, requiring a comparable expansion of the facilities, equipment and staffing of the Winters Fire Protection District. In order to serve the Planning Area adequately, the District has indicated that a new fire station, adequate pumpers, a new ambulance, additional technical equipment, and additional staffing would be needed. This would include two new pumper trucks, one squad car, one completely equipped ambulance, and manpower to operate on a shift schedule. Anticipated staffing for the new station would consist of 12 new fire fighters, and two other (non-fire suppression) staff persons.

VI. EMERGENCY FACILITIES AND SERVICES

The existing fire station is inadequate to provide effective protection service, particularly to the northern area of the city, and a new station in the northern area would be needed. The DGP Land Use Diagram was configured in anticipation of this need, and a four acre site is designated for public or quasi-public uses at the southwest corner of the intersection of Railroad Avenue and the proposed new loop arterial roadway. This location offers direct access to the circulation system feeding all parts of the city and is generally centered within the northern area, so that newly developing areas to the east and west of this location can be served equally.

A combination of development fees and increased tax revenue from improved property values is planned to provide a substantial proportion of the financing necessary for the District for acquisition and development of the new station house, which will be shared with the City Police Department. The fiscal impacts of the Fire District's need for additional funding are presented in Chapter VIII.

Maximum emergency response time from the proposed new facility site to new development areas would range between two to four minutes after equipment leaves the station, which would be generally considered satisfactory, in comparison to a national average of five minutes. Non-emergency response time would be five to ten minutes, and would also be adequate.

Adherence to the District's standards for hydrants, fire flow (addressed in Chapter V), roadway standards, building materials, and for fire suppression equipment in commercial and industrial buildings, will improve the District's ISO rating and ability to respond effectively to emergencies.

Alternative II, the Modified Draft General Plan, would result in urban development within the same area as the Draft General Plan, with about 26 percent more dwelling units, and a moderately increased rate of commercial development. This increase in the magnitude of development anticipated in comparison to the DGP, would not require an additional fire station, but would require the addition of between one and three additional fire fighters, and a somewhat faster pace of equipment acquisition. The same policies for setting goals for the District's level of service and ISO rating would apply to Alternative II.

The DGP includes a policy (IV.G.1) supporting the efforts of the Fire District to achieve and maintain an ISO rating of five or better, with an average Priority 1 emergency response time of five minutes as a goal. The Implementation Program of the Public Facilities and Services Element requires the City to maintain Level of Service Plans for all public services, including the provision of fire protection services.

The DGP requires that public services to serve new development, including fire protection, be developed and become operational as they are needed (IV.A.1), and that by the use of develop-

VI. EMERGENCY FACILITIES AND SERVICES

ment fees, assessment districts, and other funding mechanisms, the costs of increased public services will be fairly shared by the development benefitting from those services (IV.A.4). Capital facility planning and budgeting, and the development review process, are to be used to ensure that levels of service adopted by the City are maintained (IV.A.3).

The Draft General Plan provides the means for improvement and expansion of the Winters Fire District to serve the needs of new and existing development adequately, and therefore, neither the Project nor the Modified DGP have a significant impact on the provision of fire protection services.

3. Mitigation Measures

No Mitigation Measures appear to be necessary. Adherence to the District's standards, and the construction, staffing and equipping of a new fire station will be sufficient to provide effective fire protection services.

B. POLICE SERVICES

1. Setting

The City of Winters Police Department is located in a separate building adjacent to the City Hall on First Street at Abbey. The Police Department provides 24-hour service throughout the city and has a reciprocal Office of Emergency Services (OES) area understanding to assist the County Sheriff in providing service to the surrounding unincorporated area. The city constitutes a single patrol district, although records are kept by city sectors. The total service area for the Department is one and one-half square miles.

Current staffing consists of the Police Chief, one Sergeant, six Patrol officers, one Investigator, one full-time and one part-time Clerk. There are six reserve officers. Dispatch is handled through a central office in Woodland. There is a minimum of one and a maximum of three persons on each eight-hour shift. Emergency response time to the areas proposed for new development in the planning area is two minutes. Non-emergency response time is five to ten minutes. The primary type of crime reported in the area is theft. The statewide average number of police officers per 1,000 population is 1.7. The Department has an existing ratio of 1.66 officers per 1,000 population, and has a goal of increasing this ratio to 1.8 sworn officers per 1,000 residents.

Police headquarters facilities measure about 2,000 square feet, including space for records, equipment, evidence storage, holding cell, training room (squad room), the Sergeant's office, and the Chief's office. An unsecured outside lot is used to park three marked squad cars, one unmarked car, and a motorcycle for off-road patrol.

2. Impacts

New development as anticipated by the Draft General Plan which is developed too rapidly, or which otherwise is a burden on the ability of the Winters Police Department, including development which does not contribute a proportionate share of the cost of providing expanded police protection services, would represent a significant, adverse impact. Provision for new or expanded Police Department facilities is also necessary to avoid a significant decrease in the Department's level of service.

As the city grows, the Police Department anticipates that there will be a need for expanded service. The Police Department has planned in anticipation of sharing facilities with the Fire District in a new branch station north of Grant Street. This would allow joint use of a conference or training room, storage lockers for on-duty patrol officers, a secured area for vehicle parking, and some office space. Approximately 10,000 square feet of building space would be sufficient for the Police Department's needs.

In order to serve the additional population of about 7,900 persons projected for the planning area, the Department would need 14 sworn officers (one lieutenant, four sergeants, and nine officers), six non-sworn personnel (one secretary, two technicians, and three community service officers), and nine additional vehicles, and a new public safety facility, as described above. The fiscal impacts of the Police Department's need for additional funding are evaluated in Chapter VIII.

The proposed Draft General Plan Land Use Diagram includes a site for a joint Police/Fire facility located on the Main Street loop road near the west end of the lake. This location offers direct access to the circulation system feeding all parts of the city, and particularly to the northern area, which will experience the majority of the growth anticipated by the Draft General Plan. Police personnel, as well as Fire Department staff, would be available to monitor activities in the adjacent community park, and to effect rescues in the lake, if needed.

Alternative II, the Modified Draft General Plan, would result in urban development in the same area as the Draft General Plan, with about 26 percent more dwelling units, and a moderately increased rate of commercial development. This increase over the magnitude of development anticipated to occur with implementation of the DGP, would not require an additional police station, but would require the addition of between one and three additional sworn officers, and probably a faster pace of equipment acquisition. The same policies for setting goals for the Department's level of service would apply to Alternative II.

The DGP includes a policy (IV.F.1) for the City to minimize the response time of the Police Department, and to work towards achieving the goal of an average Priority 1 emergency response

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time of three minutes. In addition, response times are to be monitored, and reported on annually (Policy IV.F.2). The Implementation Program of the Public Facilities and Services Element requires the City to maintain Level of Service Plans for all public services, including the provision of police department services.

The DGP requires that public services such as the Police Department, to serve new development, be developed as expansion is needed (IV.A.1), and that by the use of development fees and other funding mechanisms, the costs of increased public services will be fairly shared by the development benefitting from those services (IV.A.4). Capital facility planning and budgeting, and the development review process, are to be used to ensure that levels of service adopted by the City are maintained (IV.A.3).

Both the Draft General Plan and the Modified DGP provide the means for improving and expanding the Winters Police Department to serve the needs of new and existing development adequately, and therefore neither Alternative I nor II has a significant impact on the provision of police department services.

3. Mitigation Measures

No mitigation measures appear to be necessary. Funding for the Department's general staffing and equipment to serve new development, and the construction, staffing and equipping of a new fire station, obtained from development fees and new property taxes, are expected to be sufficient to provide effective police department services.

VII. OTHER FACILITIES AND SERVICES

A. PARKS AND RECREATION

1. Setting

Existing public and private open spaces and recreational facilities within the City of Winters include the 3.4-acre City Park at Fourth and Main Streets, the 2.5-acre Dry Creek Park (undeveloped), facilities associated with each of the schools, the Community Center and Rotary Park Complex, and the Winters Scout Cabin (Ref. 48, page VII-1). For general park acreage, the ratio of parkland to population is about 1.3 acres per 1,000 residents. Nearby regional recreational facilities include Lake Berryessa, Solano Lake Regional Park, and the Putah Creek Fishing Access zone along Highway 128 and Putah Creek, beginning about seven miles west of the city.

The City's Zoning and Land Development Ordinance incorporates the requirements for park and recreational land dedications for residential subdivisions (Ref. 59, Ch. 2, Sect. 8-3.301). As allowed by state law (Quimby Act), the city requires the dedication of, or payment in-lieu of, 3 acres of parkland per 1,000 residents projected to reside within the proposed development. Provisions within this ordinance require sites for parks, recreational facilities and other public uses to be reserved where such uses are shown by an adopted General Plan or Specific Plan. Development fees levied by the City on residential, commercial and industrial development provide funds for development and acquisition of parks and recreational facilities.

2. Impacts

A decrease in the ratio of park acreage to city residents, or a failure to acquire and develop new parks as the city population grows would represent a significant, adverse impact. Land use development which occurs as defined by the DGP (or Alternative II, the Modified DGP) which does not distribute facilities fairly throughout the city could be a significant impact, as well as any major relaxation of land dedication or development fee requirements. Lastly, a significant impact would be created if the Project's policies or the urban development it anticipates would cause a deterioration in existing park facilities or recreational resources.

Residential development consistent with the Draft General Plan Land Use Diagram would increase demands on park and recreational facilities in the city of Winters, by enabling an estimated 7,900 people to be added to the population of Winters by 2010. Population growth of this magnitude would require the development of substantial additional parks and recreational facilities within the city to meet the increased local demand. With the population increases enabled by the Draft General Plan, greatly increased pressure on existing facilities would result, and on recreational programs and nearby regional recreation resources.

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The Implementation Programs of the Recreational and Cultural Resources section of the Draft General Plan directs the City to prepare and adopt a Parks Master Plan with standards for park sizes as follows: Mini-Parks, between one-half and three acres; Neighborhood Parks, between three and five acres; and Community Parks, from 10 to 20 acres. The Parks Master Plan would also establish goals, policies and standards for location, size and features of all existing and proposed parks, based on the General Plan Goals and Policies.

The Plan, as described in the Recreational and Cultural Resources Policies, proposes to add several new park facilities and upgrade some elements in the existing system, including:

- ◆ Four new neighborhood parks of 5 to 10 acres each in four defined residential areas, to serve as a focal point for new neighborhood areas.
- ◆ Two special purpose community parks, including a 30-acre park containing a lighted baseball field and soccer field, with concession and restroom facilities, and a 20-acre park for joint school and community uses, including a swimming pool, gymnasium, basketball and tennis courts, other playfields, playgrounds and picnic areas.
- ◆ Development of new special-needs centers near the existing Community Center, including a cultural center, teen center and senior center, and along Putah Creek near the Center, a swimming area, picnic area and interpretative center.
- ◆ Development of a city-wide network of paths and trails for pedestrians, bicyclists, and equestrians. Bike and walkways are to interconnect all the parks, schools, neighborhoods, and civic, commercial and employment districts, and bikeways should also be integrated into the Yolo County bikeway system.
- ◆ Construction of a championship-rated golf course, partly incorporating the City-owned wastewater treatment plant spray fields, as a condition of approval of development in the northern portions of the city.
- ◆ Designation of the four and-a-half acre area between Highway 128 and Putah Creek south of Valley Oak Drive as a visitor center, with a park, tourist information center and/or interpretative center.

In total, the Draft General Plan proposes a total of about 84.5 acres of new major parks, and in addition to the above facilities, five Mini-Parks are planned totalling about 7.5 acres. The total acreage proposed represents a very substantial increase from the approximately six acres of existing parkland.

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The physical distribution of the proposed new parks appears sufficient to ensure that each neighborhood will have its own neighborhood park. Although neither the existing General Plan or the 1991 General Plan establish standards for the maximum distance from a residence to a park, the proposed Project Policies place a high degree of emphasis on pedestrian accessibility throughout the city. Typical distances between parks as shown on the Project Land Use Diagram would be about 2,000 feet, resulting in an average distance of about 1,000 feet from any residential unit and the nearest park. The greatest distance between a residence and an existing or proposed park would be about 1,700 feet, or about a third of a mile, from the north-westernmost corner of the northern growth area to the park south and east of the Main Street Loop Road.

A distance of about 1,600 feet from a residential area to a park would occur in the area where the Loop Road connects to Grant Street on the west side of the city, although the visitors' center would be somewhat closer. This area is within a larger area of about a third of a square mile, bounded by Railroad Avenue, County Road 33, the western link of the Loop Road, and Grant Street, and in which the only new park would be a one and-a-half acre Mini-Park between Apricot Avenue and the city cemetery. In relation to the large acreage of parkland in the outer areas of the city, this area appears to be deficient in park accessibility, although it does not appear to constitute a significant impact. Although the proposed re-use of the existing city High School site is not clear, it could be considered as a potential park site for this neighborhood.

A variety of other Policies and the Implementation Programs of the Draft General Plan Recreational and Cultural Resources section define standards and criteria for park sizes according to their different purposes, the general characteristics of parks, and the means of park acquisition and development. The primary standard, or objective, is to provide five acres of developed parkland per 1,000 residents, and land, improvements, or development fees to serve this purpose are to be provided as a condition of new development. On the basis of the proposed standard, the anticipated population would require 62.5 acres of parkland, which is very much more than is currently available, but also substantially less than the 92 acres which are identified in the Land Use Diagram.

The Modified Draft General Plan, Alternative II, would enable a population increase of about 9,400 persons by 2010, and would therefore require the provision of more parkland or recreational facilities than development defined by the DGP Land Use Diagram. Developer dedications would be increased by 4.5 acres over the projected requirements of the Project to 28.2 acres, therefore slightly reducing the need for other sources of land acquisition or improvement financing. With a total population of 14,000, the standard (five acres per 1,000 residents) for park land and recreational facilities set by the City would require 70 acres of land, a figure which is still well within the 92 acres of parkland defined by the Land Use Diagram of both the Project and Alternative II.

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The pace of parkland and facility development would be somewhat accelerated, but in all other respects, because the Modified DGP differs from the Project only in its residential population by a limited amount, and incorporates the same policies for development of parks and other facilities, the impact of the Modified DGP on the development process and distribution of recreational facilities of the Modified DGP would not be significant.

The Quimby Act allows cities in California to require development to provide parkland dedications or payment in-lieu of dedications, for the achievement of a ratio of three or five acres of parkland per 1,000 residents, depending on the city's existing ratio. For new development under Alternative I, the total of which will add about 7,900 persons to the city, about 23.7 acres of new parkland and improvements could be required by the city. The resulting 29.6 acres of parkland, including the existing 5.9 acres of parks, would result in a ratio of about 2.4 acres per resident, less than half the objective of the DGP. The additional 62 acres of proposed parkland would likely require the use of county, state and federal funding for acquisition and/or development as directed by the DGP (Policy V.A.3). Although it would be difficult for the City to meet the ideal ratio, new development would raise the present ratio of parkland per resident, and would be beneficial.

Both the DGP and the Modified DGP incorporate a Policy requiring new development proposals to include the dedication of land or improvements, the payment of in-lieu fees, or a combination of these as defined by the city, to contribute to the City's goal of providing five acres of parkland per 1,000 residents (V.A.1). Such requirements will be made to the maximum extent permitted by law, and dedications of land for the golf course, or as required for creek setbacks will not be accepted as substitutes. This Policy maintains the park land dedication requirements of the City, and by tying those requirements directly to proposed urban development and resulting population increases, the acquisition and development of parks should keep pace with the population increases. It should be noted, however, that this Policy is limited as a policy foundation for acquiring or developing the approximately 92 acres proposed in the DGP.

There are no policies in the Recreation and Cultural Resources Element which directly specify that park improvements must be completed at the same pace as land dedications are made, or how park proposals will be prioritized. However, the Parks Master Plan would provide a strategy or administrative procedures which would determine the City's needs for land or improvements. In addition, the City's Capital Improvement Program (CIP), as required by the Implementation Programs of the Public Facilities and Services Element, and that element's policies on the provision, timing and completion of public facilities will serve as the basis for preventing development from outpacing the City's ability to provide parks and recreational facilities. The CIP will also utilize a portion of General Funds for the development of park facilities.

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The Draft General Plan includes policies which will promote the development of new parks and recreation facilities throughout the city, increase the ratio of parkland to residents, and accommodate the needs of both new and existing residents. The impact on existing parks and recreation services, or on the ability of the city to provide improvements is not significant.

3. Mitigation Measures

No mitigation measures are necessary.

B. SCHOOLS

1. Setting

The Winters Joint Unified School District provides school services to the City of Winters, and also accepts students from the surrounding unincorporated area, including portions of Solano and Napa counties. An estimated ten percent of the District's total students reside outside of the Winters city limits. The District operates the facilities listed in **Figure 34**.

Of a total of 66 classrooms used by the District, 20 are "relocatable" units not considered as solutions to providing educational services. The District provides busing services for students who live outside the Winters City limits. Total 1990-91 enrollment was 1,611 students, and 1,682 students are projected to attend in the 1991/1992 academic year.

The District's school facilities are currently operating near or above desirable capacity, and total District facility space remains for less than 100 additional students in all categories. Waggoner Elementary School currently relies on relocatable classrooms for about 50 percent of its students, and with an estimated enrollment of 730 students in the 1991-1992 academic year, would be effectively over capacity by 155 students. The District considers it possible that with the stopgap remedies now in place the school can accommodate 65 more students, and could serve more students by shifting first-graders to relocatable classrooms placed at the Clayton School. Winters Middle School is the closest to actual capacity, and can ideally accommodate only 5 additional students, though the use of one relocatable classroom and a planned addition to the building would increase the school's capacity to about 405 students. Winters High School has an optimum capacity for only 30 more students. The total student capacity of all facilities would enable a maximum of 90 new dwelling units to be added to the city housing stock, which would be expected to generate 43 K-5 students, 22 junior high students, and 29 high school students, causing nearly all the schools to be operating at a state of excess capacity.

VII. OTHER FACILITIES AND SERVICES

Figure 34

EXISTING FACILITIES OF THE WINTERS JOINT UNIFIED SCHOOL DISTRICT

Draft General Plan EIR
City of Winters, California

<u>Name of Facility</u>	<u>Total Acres</u>	<u>Student Capacity</u>	<u>90/91^a Enrollment</u>	<u>Relocatable Units</u>
John Clayton Kindergarten	2.5	162	144	-
Waggoner Elementary (1-5)	10	725 ^b	682	15
Winters Middle School (6-8)	10	375	370	7
Winters High School (9-12)	20	450	423	1
Wolfskill Cont. H.S. (9-12)	1.7	30	29	-
Total	59.5	1,812	1,648	23

Other Facilities:

Agricultural School, 10 acres on Niemann Street, for H.S. students

District Offices on Main Street

Corporation Yard, about 2 acres on Grant Street

^a Includes Special Education students

^b Actual capacity considered to be 675

The District does not possess any sites for additional school construction, but it intends that any new school will be a middle school (6-8), and that the existing Winters middle school will be converted to an elementary school. The District has indicated that it intends to retain the use of the agricultural school in its present location, (Ref. 34, page 10).

Under contract with local day care providers, the District provides limited day care services for kindergarten-age children who live in the Lake Berryessa area and attend school in Winters. This service allows these children to spend a full day in Winters, eliminating the need for more than one bus run to Lake Berryessa (communication with Michael Roberts, Superintendent, Winters Joint Unified School District).

VII. OTHER FACILITIES AND SERVICES

The student generation rates per household used by the District are as follows: kindergarten (K) and grades 1-5, 0.45; 6-8, 0.23; and 9-12, 0.30. The ideal standards for school size are 26 students per kindergarten classroom, 500 to 550 per elementary school, 800 to 900 per middle school, and 1,200 to 1,400 for a high school. Under certain circumstances, these school limits may be increased to 650 for elementary schools, 1,000 for middle schools, and 1,600 for a high school. For all categories the optimum ratio is one classroom per 27 students, and 15 percent of all classrooms available for special programs.

Although Winters is a relatively compact small town which would normally be suitable for walking, sidewalks exist only in limited areas for school children to walk safely to the schools, which increases the need for school bus services.

State legislation, AB 2926 (1986), allows school districts to levy school impact fees on new development. The legislation limits the fees to a current maximum of \$1.58 per square foot of residential floor space and \$0.26 per square foot of non-residential floor space. The fees may be used for land acquisition and actual construction of schools. The Winters Joint Unified School District currently levies the maximum impact fees allowed by State law. However, these fees are not sufficient to finance the acquisition of new school sites and their construction (communication with Michael Roberts, Superintendent, Winters Joint Unified School District). The cost of school facilities and the ability of the District to obtain sufficient financing for site acquisition, construction and operation relies also on state and local financing alternatives. The state provides for interim relocatable classrooms at low rents, funding for rehabilitation of buildings over 30 years old, and under the Greene Lease-Purchase program, site acquisition, design and construction for new buildings. This state assistance, which also relies on voter approval of school bond initiatives, is limited, however, and there are long waiting lists of applicants for funding.

Local funding options include special parcel taxes (to be approved by two-thirds of voters), the adoption of a Mello-Roos Community Facilities District, tax increment funds from a redevelopment agency, and dedications of land, or payment in-lieu of a dedication for improvements. The proponents of development in the northern area of the city have proposed the establishment of a Mello-Roos District to supplement the permitted development fees. Pursuant to Government Code Section 53311, a community facilities district may be formed to finance purchase, construction, expansion, or rehabilitation of elementary and secondary school sites and structures. Such financing would be provided through a special tax levied in the district. The boundaries of the district could extend beyond the General Plan area, e.g., to include areas outside the study area boundaries, and to encompass currently undeveloped lands designated for urban uses. Establishment of the district would require property owner approval.

2. Impacts

New residential development in the General Plan study area is estimated to result in 3,023 new dwelling units, which could generate, on the basis of the student/household ratios used by the school district, 1,360 kindergarten through elementary school students, 695 middle school students, and 907 high school students (2,962 total students). The existing school facilities are not capable of providing for more than about 95 additional dwelling units (see above), and any additional units beyond these would result in significant, adverse impacts on the effectiveness of the Winters educational system.

For the purpose of evaluating school needs, it is assumed that the District will continue to be responsible for a consistent proportion of students from outside the city limits, previously defined as ten percent of the total student body. This EIR assumes that the city's growth will induce other growth in these unincorporated areas at a rate equal to the city's. The proposed Draft General Plan anticipates an estimated total of 4,639 dwelling units will exist in the city by the year 2010. Using this figure, and adding an additional ten percent to allow for students from unincorporated areas, it is projected that the District will be responsible for housing up to 2,320 Kindergarten through fifth grade students, 1,185 middle school students, and 1,546 high school students, or a total of 5,051 students at the end of the twenty year planning horizon, including an estimated 505 students from unincorporated areas. In addition, as many as an additional two percent over the total K-12 student population is enrolled in a continuation high school program and thus the District should plan for expansion of the Wolfskill facility to accommodate about 30 additional students.

On the basis of these projections, and using the standards (the upper limits) for school size, by the end of the 20-year planning period, the District will need a total of four elementary schools (two new), two middle schools (both new), and one high school (new). The first middle school is required almost immediately, while the second middle school would not be required until a total of about 2,300 new residential units are built (including those in unincorporated areas). After completion of the new middle school, and a conversion and enlargement of the existing middle school to an elementary school with a capacity of 500, Waggoner elementary school will be re-established as having a capacity of 500 students, and the two schools will have a combined capacity for 270 new K-5 students (1,000 less present enrollment estimate of 730). This capacity would accommodate students generated by the development of approximately 600 dwelling units, although both schools would be able to expand their capacity by 50 students each, for a total of 1,100 K-5 students, sufficient for an additional 220 new dwelling units. At full capacity, these facilities could serve about 27 percent of projected additional residential development (3,023 total units), though without allowance for new residential development in unincorporated areas. A new elementary school would be required to serve residential development beyond that point, and another school would be needed when development reaches about 65 percent of buildout.

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The new high school will also be needed soon, or before new potential development reaches 4 percent of anticipated buildout. Because of the ultimate plan to close the existing high school, it would not be practical to expand or substantially remodel that facility as a substitute for a new high school. Although the new high school would be planned for an ultimate student population of 1,600, a facility housing approximately 600 students, in a first phase, would enable about 24 percent of new residential development defined by the Project to proceed. The District could then operate both the new and existing high school facilities, with a combined capacity of about 1,000 students, or for about 90 percent of the anticipated residential buildout potential. By that time, or at any prior point in time during buildout of the Project, the new high school could be expanded to serve its total capacity of 1,600 students, enabling the existing facility to be closed. Once the new facility is completed, no additional high school would be required within the timeline of the Project. The re-use of the existing high school would presumably require environmental review pursuant to CEQA.

The proposed Draft General Plan, as part of the Public Facilities and Services section, directs the City to support the aims of the Winters Joint Unified School District's Facilities Plan (Ref. 34) for obtaining new sites and adapting existing facilities to other school needs (Policy IV.H.1). The Land Use Diagram designates specific sites for new facilities, including:

- A 19-acre site for a new middle school for a maximum of 900 students (grades 6-8), in order to convert the existing middle school to an elementary school.
- A 10-acre site for a new elementary school, with a capacity of between 500 and 550 students, in the northeastern area of the city.
- A 30-acre site for a new high school with a total capacity for 1,600 students.

In addition to the above new facilities, the proposed Draft General Plan endorses the District's program to implement the following measures:

- Add facilities to existing school sites on an interim basis until the new facilities are available.
- Convert the existing high school to a use which provides revenue to the District, specifically for construction of the new high school.
- Retain the agricultural school in its present location, with modifications to reduce conflict with adjoining residential uses.

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The Draft General Plan proposes that a complete bike and pedestrian pathway network will be developed (Transportation and Circulation Element, Policy III.G.1), together with sidewalks as required by the site planning process, which would be linked to the new school area. For bus transportation, the District has a general standard of providing one bus per 500 students, which would require a total fleet of about ten buses by the end of the planning period. However, the District anticipates that with a larger student population in the overall system, additional buses are needed to serve more complex needs, such as potential magnet schools, growth in rural areas, or a need to transport elementary school students out of their neighborhood. In addition, reserve buses are needed to accommodate repair and maintenance requirements.

As noted, above, the projected population increase will require the District to add two elementary schools, two middle schools, and one high school to its facilities. However, the Land Use Diagram designates only one site for a new elementary school, and only one site for a new middle school, which could potentially require the District to continue to use of relocatable classrooms. Because of the difficulty in financing school construction, however, the use of relocatable classrooms is assumed to continue for some proportion of total classrooms.

The Modified DGP, Alternative II, would result in an overall total of approximately 5,434 dwelling units (existing and future) in the incorporated area of Winters, and combined with potential growth outside of the city limits, could generate up to 2,717 K-5 students, 1,389 middle school students, and 1,811 high school students. These students would require, in addition to the facilities indicated as necessary for the Draft General Plan, one additional elementary school, and continued use of the existing high school facility. A completely new, additional high school would be an inefficient solution. The Modified DGP Alternative would essentially require a slightly faster pace of new school construction than the Project, particularly the elementary schools and the second middle school. Because the Land Use Diagram for the Modified DGP with regard to the provision of public facilities is identical to the Project, the Modified DGP is also deficient in providing school sites, and its Land Use Diagram does not identify two elementary school sites that would be needed, as compared to the one added site not identified by the Project Land Use Diagram. Neither Diagram identifies a second middle school facility.

On the basis of these Diagrams, additional school sites would need to be designated to accommodate the development of the projected numbers of dwelling units for either Alternative I or II. A substitute solution would be the continued use of relocatable classrooms, which, because of their extensive, established use, this impact would not be significant. In addition, the cost of constructing new facilities, and the difficulty of obtaining adequate development impact fees for school construction, may make the construction of additional facilities unfeasible, even with adequate sites.

VII. OTHER FACILITIES AND SERVICES

The Draft General Plan, and including both Alternatives I and II, incorporates Policies to assist the District in facility planning, promoting state school finance legislation, and obtaining funds for school facilities through development fees and other strategies (Policies IV.H.2,3,4). To the extent possible, school facilities are to be completed and operating prior to occupancy of new residential developments which are responsible for the need for the new school (IV.H.5). Consultation with the School District to ensure that individual residential developments mitigate their school-related impacts, to the extent allowed by law (IV.H.6). These policies would serve to prevent development under conditions of inadequate school sites or facilities.

The Draft General Plan and the Modified DGP both provide a process to ensure that school facilities would be available to meet future demands resulting from new residential development, and therefore would not have a significant impact on the School District's ability to serve the educational needs of students in the city.

3. Mitigation Measures

No mitigation measures are necessary.

C. PUBLIC UTILITIES (Gas, Electricity and Telephone)

1. Setting

Pacific Gas & Electric Company (PG&E) provides gas and electricity service to Winters. Gas lines are located underground along street rights-of-way or in separate easements. Electric lines are typically carried overhead on power poles throughout the older parts of the city. Power lines follow street rights-of-way or separate easements.

The main electrical supply for Winters is a 60 kilovolt (Kv) overhead transmission line located east of the city. Power is brought to the Winters substation southeast of the I-505 and Highway 128 interchange, and to the Putah Creek substation near Oak Creek. Putah Creek Substation is supplied by a 115 Kv feeder.

Telephone service in Winters is provided by Pacific Bell. Overhead lines are carried on power poles throughout most of the older parts of the city. Service is constructed underground in all new development.

2. Impacts

PG&E has indicated that gas and electric service could be provided to the Project area (communication with Cecil Padilla, Pacific Gas and Electric Company). All power lines for new develop-

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ment would be constructed underground in accordance with current Zoning Ordinance requirements. PG&E could not and would not take the lead in coordinating trenching for electric, gas, phone, and Cable TV. When specific plans are submitted to PG&E, they will design a system for the individual project proposals.

Pacific Bell would provide telephone service to the development in accordance with the requirements of and at the rates and charges specified in its scheduled tariffs.

3. Mitigation Measures

No mitigation measures are required.

VIII. FISCAL/PUBLIC FINANCING CONSIDERATIONS

This chapter of the EIR incorporates a Fiscal Impact Analysis which serves to estimate the potential impacts of the proposed Draft General Plan on the City's annual operating budget through the year 2010. Evaluation of the fiscal impacts of the Modified Draft General Plan (Alternative II) is also provided.

Adoption of the proposed Project (or any of the Alternatives considered in this EIR) would generate demand for additional City services, including police and fire protection, and would also generate operating revenue for the City. The fiscal analysis compares the revenues projected to be generated annually by development defined respectively by the Draft General Plan and by the Modified Draft General Plan, to the projected yearly cost of providing required services. Where the Project results in a significant negative fiscal impact (i.e. where expenditures exceed revenues), measures to mitigate the impact are identified.

The fiscal analysis was conducted by preparing a Fiscal Impact Model reflecting the City's budget. Specific revenues and expenditures that are affected by new development were identified, and forecasting methodologies were developed. These methodologies used a marginal cost and revenue approach augmented by average cost and revenue estimates. A representative printout of the Fiscal Impact Model used for this analysis is provided in Appendix B.

The methodologies were used to forecast revenue and expenditures under the proposed Project and Alternative II. Existing levels of service were assumed for this analysis when adequate; where existing levels of service are inadequate a higher standard has been assumed as appropriate. These levels of service are discussed by individual service or department, below, under the Setting heading.

The levels of service for police and fire services assumed in this analysis are higher than existing levels of service currently provided in the City. In particular, fire services have been assumed to change from relying on volunteers to using paid staff. This assumption and shift is necessary to meet the General Plan objective of providing a fire services response time of five minutes and improving the City's ISO rating. For police services, only a slight increase in service is assumed, i.e. from 1.7 officers per 1,000 population to 1.8 officers per 1,000 population. The remaining expenditures are based on existing expenditures and averages, and thus, do not assume any increase in levels of service.

Land Use Assumptions

The proposed Draft General Plan includes a set of proposed land use designations as described in Chapter II. The Draft General Plan Land Use Diagram designates specific locations and acreages

VIII. FISCAL/PUBLIC FINANCING CONSIDERATIONS

for each land use designation, and an estimate of the acreage in each designation has been provided in **Figures 5** and **6**. In addition, estimates of the building floor area that could be accommodated under each land use designation have been provided in **Figure 7** for the purposes of analyzing the "worst-case" environmental impacts of the proposed Project. For example, the Land Use Diagram identifies an area of about 25 acres designated for Neighborhood Commercial land uses, which could accommodate about 268,000 square feet of retail, service, office and other uses. Given that retail, office, industrial and service space have unique and different revenue generating capabilities, this analysis requires that an estimate of each type of space be identified rather than land use designations. For the purpose of the Fiscal Impact Analysis it was necessary to estimate the extent of development that would be likely to occur by 2010 under market conditions. In addition, although the General Plan may allow for 1.6 million square feet of retail, office, service and industrial space, it is assumed that the market will support only a certain amount of each of these types of space, in proportion to the population potential of the proposed Project and the employment forecasts for the City of Winters. Therefore, in order to estimate the "worst-case" fiscal scenario of the proposed Project, a realistic forecast of development has been made using the following assumptions.

Retail space has been forecast according to the degree of market support that would be generated by the net new population projected to result from implementation of the Draft General Plan. The dollar value of retail expenditures that would be made by this new population was first estimated by applying a per capita income of \$16,852 to the new population for Alternatives I and II, and using consumer spending information provided by the Bureau of Labor Statistics (i.e., 88 percent of total income is expenditures and 35.7 percent is retail expenditures) (Ref. 45). These retail expenditures are then distributed by type of product, i.e., groceries, clothing and other comparable goods. The total expenditures by product type are then divided by average sales per square foot, which vary by product type, resulting in an estimate of the square footage of retail space that could be supported by the new population.

In order to estimate the floor area in office, service and industrial buildings likely to be constructed by 2010, the employment forecast by Sacramento Area Council of Governments (SACOG) for Winters was used. Winters is forecast to have a total of 3,000 employees by 2010, of which 695 would be in the retail industry, with the balance of 2,305 employed in "other" industries. These SACOG forecasts assumed a population of 14,000 in Winters by 2010. An average figure of 400 square feet per employee was applied to the projected 2,305 employees, which equal about 1.03 million square feet of space. Given that the City of Winters is unlikely to attract major office development given the more competitive office centers located elsewhere in the region, it was assumed for the purposes of this analysis that the majority of this new space would be industrial space. Specifically, it is assumed that 15 percent of new "other" space would be developed for service uses, 5 percent would be office, and 80 percent would be industrial.

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Figure 35 provides a summary of the development assumptions used in this analysis. The Figure includes assumptions for the characteristics of each of the Alternatives evaluated in this Draft EIR, including those discussed in Chapter XV, Alternatives to the Project. It should be noted that these figures are somewhat lower than the development assumptions used in other parts of this document, as discussed above. In addition, residential uses have been collapsed into three general categories: Single Family/Low Density, which includes Rural Residential and Low Density Residential designations; Single Family/Medium Density, which includes Medium Density Residential and Medium High Density Residential designations; and Multi-Family/High Density, which is equivalent to the Draft General Plan designation of High Density Residential.

Redevelopment Area Assumptions

Some of the development envisioned in the General Plan and analyzed in the fiscal model would occur within the boundaries of the City's Proposed Redevelopment Area. According to the Proposed Redevelopment Plan, all net new property tax revenue from the Redevelopment Area would go to the Redevelopment Agency and not to the City's General Fund. Thus, these revenues would not be available to the City to fund the public service requirements generated by new development in the Redevelopment Area. According to the Proposed Redevelopment Plan, there would be 275 new dwelling units, 60 new apartments, 350,00 square feet of new commercial space, and 550,000 square feet of new industrial space in the Redevelopment Area during the life of the Plan. This new development would have an estimated assessed value of about \$1.04 million. Property tax revenue on this amount would be about \$260,000 (25% of 1%). This amount of assessed value has been removed from the property tax calculations for all alternatives (see Table 4 of the model printout).

Park Acreage Requirement Assumptions

Under the Quimby Act, the City can require developers of residential projects to dedicate (in deed or provide payment in lieu of a dedication) three acres of developed parkland per 1,000 persons which are projected to be generated by the proposed development. This requirement may be increased to five acres per 1,000 residents if the City has an established ratio of existing residents to parkland that is at least five acres per 1,000 residents. Although the Draft General Plan Land Use Diagram identifies a total of 92 acres of park land for development, this amount of park acreage is above and beyond what the City can require under the Quimby Act unless a standard of 5 acres per 1,000 residents for the existing population can be established and maintained. Presently, the City has about 1.2 acres of developed park per 1,000 residents. This fiscal analysis assumes the City will acquire and develop no more than three acres per 1,000 population. The proposed Draft General Plan will add approximately 7,750 persons to the city's existing population, and using the established, allowable ratio of parks to population, the proposed Project would result in the dedication of 23.2 acres of parkland. However, a sensitivity analysis of the annual maintenance cost for 92 acres of developed parkland was also undertaken and is discussed in the Impacts section of this Chapter.

Figure 35
SUMMARY OF DEVELOPMENT ASSUMPTIONS
Draft General Plan EIR
City of Winters, California

Land Uses	Unit of Measure	Alternative I Draft General Plan	Alternative II Modified DGP	Alternative III North Area Specific Plan	Alternative IV Existing General Plan	Alternative V Reduced Urbanization	Alternative VI Compact Plan
RESIDENTIAL							
SF-Low Density	du	294	24	1,898	1,495	1,149	400
SF-Med. Density	du	2,300	3,133	1,224	1,595	979	2,100
MF-High Density	du	429	668	555	600	169	400
Total Dwelling Units	du	3,023	3,825	3,677	3,690	2,297	161,200
NON-RESIDENTIAL							
Retail	sqft	161,200	192,400	213,200	213,200	129,900	161,200
Service	sqft	155,588	155,588	155,588	155,588	155,588	155,588
Office	sqft	51,863	51,863	51,863	51,863	51,863	51,863
Industrial	sqft	829,800	829,800	829,800	829,800	829,800	829,800
Total Building Space	sqft	1,198,450	1,229,650	1,250,450	1,250,450	1,167,150	50
Hotel	room	50	50	50	50	50	50
OTHER USES							
Parks	acre	23.2	27.7	30.7	30.7	18.7	23.2
Open Space	acre	181.2	181.0	181.0	181.0	181.0	181.2
Streets	mile	25.4	25.4	25.4	25.4	25.4	10.0
DEMOGRAPHICS							
Total Population (1)		12,500	14,000	15,000	15,000	11,000	12,500
Net Increase in Population		7,722	9,222	10,222	10,222	6,222	7,722
Total Employment		3,568	3,642	3,692	3,692	3,494	3,568
Net Increase in Employment		2,467	2,541	2,591	2,591	2,393	2,467

(1) Based on projected total population for the General Plan Alternative; net increase in population assumes an existing population of 4,778.

Sources: City of Winters; Economic and Planning Systems, Inc.

VIII. FISCAL/PUBLIC FINANCING CONSIDERATIONS

A. SETTING

The City currently has an annual operating budget of approximately \$1.3 million. The City budget is divided into four types of funds: general purpose (General Fund), enterprise, other government, and internal service funds. This analysis focuses on the General Fund portion of the budget, which includes the majority of annual operating expenditures. Costs incurred by the enterprise and other governmental funds (such as most public works capital improvement expenditures) are primarily offset by service charges and fees and dedicated taxes (i.e. gas tax revenue).

The following discussion addresses the assumptions underlying the revenue and cost projections estimated for the Project and the Modified Draft General Plan (Alternatives I and II). All revenues and expenses are shown in constant dollars (1991).

1. Revenues

The key General Fund revenue sources are property tax, sales and use tax, municipal service tax, and intergovernmental revenues. These revenues would be directly affected by implementation of the proposed Project. In addition, revenue from the business license fees, building permits, and fines and forfeitures would be affected. Revenue from fees, and charges for services and certain intergovernmental grants were assumed to offset departmental costs, and were not forecast. These revenues are net out of each appropriate expenditure item; therefore, these revenues are assumed to continue to offset costs at the current level.

a. Property Tax

Property tax revenue is levied by the County at a rate of one percent of assessed value. Assessed value automatically appreciates two percent annually until title is transferred. When property ownership changes, the property is re-assessed at full market value. Commercial property has a very low turnover rate (approximately once every 20 years), which decreases the number of times commercial property is reassessed at market value. The low turnover rate limits the influence of inflation on the assessed value of commercial property. Residential property turns over more frequently. For this analysis, about 10 percent of residential property is expected to turnover in 2010.

The following assumptions were used to estimate the assessed value of the proposed land uses: low density single family homes at \$250,000 per unit; medium density single family homes at \$180,000 per unit; high density multi-family units at \$60,000 per unit; office space at \$100 per square foot, retail space at \$75 per square foot; service space at \$65 per square foot; and, industrial space at \$45 per square foot. Each hotel room is assumed to have a value of \$45,500 per room and an average room rate of \$25 per room.

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New assessed value is calculated by applying the above average values to the development schedules. One percent of the total new assessed value equals total property tax revenues. The City of Winters receives 25 percent of each dollar of property tax revenue generated from the development of new property in the local tax rate area.

b. Sales and Use Tax

Retail sales tax revenue is assumed to equal 1.05 percent of all taxable sales. This rate accounts for the one percent tax rate and revenue from unallocated retail sales.

Sales and use tax receipts would be generated by new retail space, as well as by new employees and new residents purchasing goods and services from new and existing retail establishments. Sales tax revenue generated is estimated based on the extent of new retail space developed. Given that the retail space forecast is directly proportional to the projected expenditures by new population, sales tax revenue that can be expected from the new population is assumed to be captured by the retail space in the City. In general, new population would shop in both new and existing retail establishments; new employees would also shop in new and existing retail establishments. In order to avoid double counting sales tax revenues only one method is used. However, for comparison purposes, sales tax revenues that would be generated by new population and employment is also estimated (see Note 2 of Model Printout in Appendix B).

Sales per square foot of retail space are assumed to be \$160. The retail floor area forecast for the proposed Project (161,200 square feet) is multiplied by this sales assumption; 1.05 percent of the estimated total taxable sales would be the sales tax revenue the City would receive under each Alternative.

In general, the analysis assumes an optimistic capture rate for retail expenditures, and thus, sales tax revenue. The City can expect to have one neighborhood retail center, anchored with a grocery store/supermarket and perhaps a drug store and some small shops. These types of centers range in size from about 120,000 square feet to 160,000 square feet.

c. Property Transfer Tax

The City receives \$1.10 per \$1,000 of assessed value when property changes hands. As discussed above, commercial property has a very low turnover rate as well as multi-family units. For this analysis, ten percent of single family units are assumed to turnover in 2010. The property transfer tax rate is applied to ten percent of the projected assessed value of all single family units for the proposed Project or Alternative II.

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d. Franchise Tax and Municipal Services Tax

The City receives revenue from a franchise tax which is levied against use of cable T.V. and telephone, and gas and electricity usage. The current amount received per daytime population of \$4.53 is forecast to continue and is applied to new daytime population. Daytime population equals total population and one-half of employment.

The City levies a flat tax of \$5 per month to each business and residential unit in the City. For this analysis, the amount of municipal service tax revenue per daytime population of \$19.77 is applied to the daytime population projected to occur with implementation of the Draft General Plan or of Alternative II.

e. Business License Fees

Business license fees are levied annually on businesses in the City, except those that pay a franchise fee. The amount paid varies by type of business. For this analysis the amount currently collected per daytime population of \$2.41 is forecast to continue in the future.

f. Building Permits and Fines, Forfeitures, and Penalties

Revenue from building permits is assumed to cover the cost of providing services associated with building inspections and plan reviews/approvals. These revenues are not forecast and they have been subtracted from expenditures for the Planning Department in order to calculate the net cost of providing these services to the public.

Revenue from fines and forfeitures is estimated based on estimated Fiscal Year 1990-91 revenue per capita of \$0.26. This amount is applied to the projected population under the Draft General Plan and the Modified DGP.

g. Intergovernmental Revenues

Intergovernmental revenues were divided into four categories: revenue from the two largest sources, the motor vehicle in-lieu tax, P.O.S.T. training reimbursements/OCJP, and other State subventions. The motor vehicle in-lieu tax generates approximately \$37 per capita; other intergovernmental revenue generates an additional \$26 per capita. Revenue from these sources was projected on a per capita basis.

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2. Expenditures

All City departments in the General Fund would be affected by the implementation of the proposed Project. Departmental expenditures were projected based on total expenditures net of fees, service charges and certain intergovernmental grants to specific departments. The assumptions made concerning the additional costs of providing services are summarized below.

a. General Government and Non-Departmental

General government and non-departmental expenditures are estimated based on the current per daytime population cost of \$57.58 (1990-91 budget). Currently general government and non-departmental expenditures represent approximately 23.8 percent of the 1990-91 General Fund expenditures. This percentage assumption is not used to forecast general government expenditures in the future because it is assumed that the City would experience some economies of scale in providing these services in relation to increases in other departmental expenditures.

b. Planning Department

Services provided by the Planning Department represented a net cost to the City of about \$117,000 in 1990-91 Fiscal Year (net of building permit revenues). This department's expenditures are forecast on a per capita basis, and these currently total \$24.51 per resident.

c. Police Protection Service

The current cost of providing police services is about one-half million dollars per year. The police department currently has a staff of eight sworn officers at a cost of about \$68,200 per sworn officer, including benefits and overhead costs. The City's goal for average response time for priority calls for service is three minutes. To meet this goal, the police department has adopted a standard of providing police services at the equivalent of 1.8 sworn officers per 1,000 population. (The current level of service is 1.7 sworn officers per 1,000 population.) This standard is applied to the net new population that is projected to be added to the City with the implementation of the Draft General Plan or Alternative II. The current average cost per sworn officer, which includes overhead and support staff costs is also applied. In addition, the department has an average of about one patrol vehicle per two sworn officers, with an average annual maintenance cost per vehicle of about \$7,500. This cost and ratio is also forecast to continue in the future. Note 5 of the Model Printout in **Appendix B** indicates the methods used to estimate police services costs.

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d. Fire Protection Service

The Winters Fire Protection District provides fire protection services to the City and an area that extends beyond the City boundaries within a 90 square mile area. The City has a property tax revenue sharing agreement with the Fire District to give the District 44 percent of the property tax revenues it receives from the incorporated areas of Winters to fund the cost of providing fire services to the City. The Fire District receives an additional 16 percent of County property tax revenues for providing services to the unincorporated areas within the District. The City's share of fire service expenditures in 1990-91 Fiscal Year was about \$186,000. The District estimates it will spend an additional \$69,000 to provide services to the unincorporated areas surrounding the City.

Presently the Fire District has three paid fire protection staff and one half-time secretary. Additional fire fighting assistance is provided by volunteers. The District has one station located in downtown Winters on Abbey Street.

According to the Fire Chief, the extent of development defined in the Draft General Plan Land Use Diagram would require a new station (possibly a joint police/fire station) to be built in the northern expansion area. In order to provide adequate response to the downtown, part of the existing station would be retained with one truck company and a squad. The main headquarters would be moved to the new station.

Ideally, the new fire station should be operated on a 24-hour basis with a three-person engine company, in accordance with the current state standard. This would allow for a response time of five minutes. The alternative to providing 24-hour service would have full-time staffing during the day with staff being on-call during the evening and night hours.

For this analysis the cost of providing 24-hour service is assumed, as this is the more common and preferred service level. In addition, for this analysis, the total cost of providing fire services is shown under the General Fund. Regardless of whether the City or the Fire District provides the service, the cost of this service will be the City's responsibility. The City is currently studying the possibility of providing fire services directly.

e. Parks and Recreation

This department provides both maintenance of City parks and public buildings, and recreation services and programs. Since the primary users of these facilities are community residents, recreation programs, swimming pool operations and maintenance, and public building maintenance and operations costs are projected based on the current costs per resident. In 1990-

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91, swimming and recreation programs cost \$4.61 per resident; maintenance and operations of the community center and other public buildings cost \$13.17 per resident.

The City currently has 3.5 acres of developed parks, which require maintenance. The City has an additional 3.25 acres of undeveloped park acreage. The City presently spends about \$10,500 per acre for park maintenance. This amount is slightly higher than some other cities spend per acre, but it is within reason given the small acreage in existing parks. This cost factor is applied to an estimate of new park acreage that would be required under the proposed Project. This analysis assumes a standard of three acres of parkland per 1,000 population. This standard is higher than the current level of service of 1.2 acres per 1,000 population. This new standard is applied to the net new population and not the existing population.

f. Public Works

The Public Works Department provides a variety of services to the community including engineering and capital improvement planning and maintenance, street cleaning and maintenance and operation of the City's corporation yard. The City is currently considering adopting a new maintenance plan similar to that used in the City of Davis.

The cost of providing engineering and department administration services and operations of the corporation yard have been forecast on a per capita basis, with per capita factors of \$22.22 and \$6.78, respectively. These factors assume that current levels of service are sufficient.

The City presently has about 18 miles of streets with an annual street maintenance cost of \$2,223 per mile. The City proposes to increase the level of service for street maintenance to \$9,500 per mile, which is comparable to what other cities spend on street maintenance. In addition, the City would spend an additional \$3,000 per land mile per year on signage and striping maintenance. About 35% of street maintenance costs would be covered by Gas Tax Fund revenues; the remaining costs would have to be paid for out of the General Fund.

An average total cost of \$12,500 per land mile for street maintenance represents a substantial increase in City expenditures for this public service or an increase in the level of service substantially above the existing level. However, the Public Works Department has indicated that the current level of service is inadequate to maintain streets at a satisfactory level and this increase is necessary. An estimated additional 25 miles of new streets would be added to the City under the proposed Draft General Plan or Alternative II. This figure is only a rough approximation of the new streets that may be constructed. Actual street mileage will vary depending on the individual design configurations of new projects.

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B. IMPACTS

The amount of revenue that would be generated and the amount of public service expenditures that would be required for implementation of the Draft General Plan, and for the Modified Draft General Plan, are described in **Figures 36 and 37** respectively, and are forecast according to the assumptions and information provided by the City of Winters. For detail of revenue and expenditure estimating procedures, refer to the representative Fiscal Impact Model printout in Appendix B.

The projected public service requirements and costs, and the fiscal impact of the proposed Project and the Modified Draft General Plan on the City's annual budget at 2010 are highlighted below. In those instances where the Draft General Plan and the Modified Draft General Plan have different fiscal impacts, separate summary statements are provided, while other impacts which apply to both are not distinguished as such, but are described as a general impact associated with either Alternative.

Overall, the fiscal analysis indicates that the proposed project and the Modified Draft General Plan would not produce positive fiscal results, if all Plan and policy elements are implemented. For example, as the City nears "buildout" under the Plan, an overall deficit of \$970,000 is indicated. In actuality, no such deficit would occur. The City would lower costs, in one manner or another, or increase revenues to meet predicted budget shortfalls.

1. Police Services

At 2010, the proposed Project would require an additional 14 sworn police officers with appropriate support staff at an estimated annual cost of about \$947,500. Vehicle maintenance costs would be an additional \$52,000 per year. The total cost of police services would be about \$999,600 for the proposed Project. These costs do not include the cost of purchasing required patrol vehicles. Fourteen new officers will require about seven new patrol vehicles. The Modified Draft General Plan Alternative, which has 1,500 more net new residents, would require 17.2 new sworn officers at a total cost of about \$1.2 million per year.

2. Fire Services

Staffing for a new fire station in the Northern Area would require 12 new fire fighters and two new non-suppression staff. This staffing level would allow for 24-hour service with a response time of five minutes. The annual cost of providing fire protection services for the city under either the Draft General Plan or the Modified Draft General Plan, would be about \$790,000 per year, which includes a 20 percent overhead allowance for support staff and small equipment replacements. These costs are in line with expenditures for a three-person engine company in other surrounding communities such as Davis and Vacaville. This level of service is above that which is currently provided to Winters. Currently, the Fire District operates with three paid fire suppression staff and depends on volunteers for the bulk of its manpower.

Figure 36
BUDGET SUMMARY: NET NEW REVENUES/EXPENDITURES - ALTERNATIVE I
Draft General Plan EIR
City of Winters, California

Budget Item	Fiscal Balance at 2010	Percent Distribution
GENERAL FUND		
REVENUES		
Property Tax	\$1,190,364	54.6%
Sales & Use Tax	\$257,275	11.8%
Transient Occupany Tax	\$27,375	1.3%
Property Transfer Tax	\$53,625	2.5%
Franchise Tax	\$40,556	1.9%
Municipal Services Tax	\$177,059	8.1%
Business License Fees	\$21,609	1.0%
Fines, Forfeitures, and Penalties	\$2,044	0.1%
Motor Vehicle In-Lieu	284,465	13.0%
Other (State Subventions)	\$125,706	5.8%

TOTAL, REVENUES	\$2,180,076	100%
EXPENDITURES		
General Government	\$412,539	13.1%
Planning Department	\$148,274	4.7%
Police Services	\$999,637	31.7%
Fire Services	\$790,350	25.1%
Parks and Ground Maintenance	\$244,936	7.8%
Swimming and Rec. Programs	\$35,591	1.1%
Com. Cen./Other Public Bldgs.	\$101,680	3.2%
Administration and Engineering	\$162,909	5.2%
Street Maintenance Department	\$207,468	6.6%
Corporate Yard	\$46,700	1.5%

TOTAL, EXPENDITURES	\$3,150,084	100%
GENERAL FUND SURPLUS (DEFICIT)		
	(\$970,008)	na

Source: Economic and Plannings Systems, Inc.

Figure 37**BUDGET SUMMARY: NET NEW REVENUES/EXPENDITURES - ALTERNATIVE II**

Draft General Plan EIR
City of Winters, California

Budget Item	Fiscal Balance at 2010	Percent Distribution
GENERAL FUND		
REVENUES		
Property Tax	\$1,438,164	55.1%
Sales & Use Tax	\$307,070	11.8%
Transient Occupany Tax	\$27,375	1.0%
Property Transfer Tax	\$62,693	2.4%
Franchise Tax	\$47,516	1.8%
Municipal Services Tax	\$207,448	8.0%
Business License Fees	\$25,317	1.0%
Fines, Forfeitures, and Penalties	\$2,441	0.1%
Motor Vehicle In-Lieu	339,722	13.0%
Other (State Subventions)	\$150,124	5.8%
TOTAL, REVENUES	\$2,607,870	100%
EXPENDITURES		
General Government	\$483,344	13.7%
Planning Department	\$173,521	4.9%
Police Services	\$1,193,817	33.8%
Fire Services	\$790,350	22.4%
Parks and Ground Maintenance	\$292,515	8.3%
Swimming and Rec. Programs	\$42,505	1.2%
Com. Cen./Other Public Bldgs.	\$121,432	3.4%
Administration and Engineering	\$194,554	5.5%
Street Maintenance Department	\$186,121	5.3%
Corporate Yard	\$55,771	1.6%
TOTAL, EXPENDITURES	\$3,533,928	100%
GENERAL FUND SURPLUS (DEFICIT)	(\$926,057)	na

Source: Economic and Plannings Systems, Inc.

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3. Parks

Assuming the minimum Quimby Act standard of three acres of parkland per 1,000 population, under the proposed Project, the equivalent of an additional 23.2 acres of parkland would be required to be dedicated by developers in the Planning Area. This amount of new parkland would have an annual maintenance cost of about \$245,000 assuming current levels of maintenance service at \$10,573 per acre. To increase the existing ratio of parkland to residents, up to the proposed park standard of five acres per 1,000 residents, would require the development of another 8.6 acres of parkland, with maintenance costs of about \$90,000 per year.

A sensitivity analysis was conducted to test the impact of developing 92 acres of parkland as designated in the proposed Project and the Modified Draft General Plan Alternative. The cost of maintaining an additional 69 acres of park would cost about \$728,000, assuming the current level of service. The inclusion of 92 acres of park in the proposed Project would increase the negative fiscal balance from \$635,500 to \$1,363,000. If the City were able to reduce the annual maintenance cost per acre from the present cost of \$10,500 to \$7,000 per acre, the fiscal balance for the proposed Project would still be negative.

4. Public Works

Annual street maintenance under the proposed Project would cost about \$56,500 per year, assuming current levels of service.

5. General Fund Balance

With development occurring as defined by the proposed Draft General Plan, as shown in **Figure 36**, the General Fund would have a negative balance by about \$970,000. This means that expenditures would exceed revenues by almost one million dollars at 2010. This projected net fiscal balance is for the incremental, additional development that would occur as defined by the Land Use Diagram for the Draft General Plan, and does not include costs and revenues associated with the existing population. With development according to the Land Use Diagram defined for the Modified Draft General Plan, the deficit would be about \$926,000, as shown in **Figure 37**. If the City was not to go forward with the Proposed Redevelopment Plan, which covers most of the Downtown, the net fiscal balance would be negative by about \$710,000.

The increased cost of providing public services, especially police and fire protection, account for much of the negative fiscal deficit. Police and fire services make up about 55 percent of total expenditures associated with the proposed Project and the Modified Draft General Plan. Revenue from commercial development would not be sufficient to cover the increase in public service costs.

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The main reasons for the net negative fiscal balance can be attributed to several factors:

- Public service levels in the City of Winters are currently below what is considered acceptable or preferred, i.e., fire service, amount of developed parkland, and public works maintenance. This analysis assumes increases in some levels of services where appropriate and realistic for new development.
- Residential development in most California communities does not pay for itself because of the restraints of Proposition 13, which limits the amount of property taxes that can be raised. Proposition 13 limits the amount that property can be reassessed to two percent unless that property changes ownership. Therefore, in the early years of a residential project there may be a balance between revenues and expenditures but over time, inflation erodes the amount of services that can be purchased with a set amount of potential revenues from residential property.
- Most communities use commercial development to counter the negative effects of Proposition 13. However, given its size and location, the city of Winters has limited ability to attract commercial development such as retail uses to subsidize the residential component of the Draft General Plan. This analysis assumes the maximum amount of non-residential development that is likely to develop for each Alternative during the 20-year planning horizon.

A sensitivity analysis was prepared to test the amount of additional commercial development that would be required to reach a fiscal balance for the Draft General Plan. The Draft General Plan designates about 444,000 square feet more non-residential space than is analyzed in the Fiscal Impact Model. This additional space, assuming it is either office, service or industrial space, would not create a fiscally sound project. For the Draft General Plan to pay for itself would require an additional 200,000 square feet of retail and 1.7 million square feet of industrial, office and service space. However, as noted above, sufficient market support for that much retail space in Winters would not exist under the Draft General Plan, nor would the expected forecast for employment growth in Winters warrant an additional million square feet of non-residential development.

The sensitivity analysis suggests that some other form of mitigation measure, aside from a redistribution of land uses will be required to create a General Plan that is fiscally sound.

The proposed Project, Alternative I, would result in a negative fiscal balance of the City's General Fund by about \$970,000 (see **Figure 36**). This annual deficit represents about 60 percent of the current annual General Fund budget.

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Alternative II, the Modified Draft General Plan, is projected to result in a population of 14,000 in the year 2010. This Alternative would have a negative fiscal balance of about \$926,000 (see **Figure 37**).

The Draft General Plan (incorporating both Alternatives I and II) directs the City to ensure that, through a combination of assessment districts, utility user taxes, and other funding mechanisms, adequate funding is available for the construction, operation and maintenance of public facilities and services (Policy IV.A.5). Through the use of capital facility planning and budgeting, and review of development, adopted service levels are to be maintained (IV.A.3). The use of development fees and other mechanisms will be applied to ensure that new development bears the cost of developing facilities and extending services (IV.A.4)

8.1A The effect of both the Draft General Plan and the Modified DGP on the fiscal balance of the City's General Fund is considered to be major, in spite of the expressed policies of the DGP. Fiscal impacts for the purpose of CEQA are not considered as significant impacts on the environment.(CEQA Guidelines, 15131 (a)).

Figure 38 presents a comparison of the revenues and expenditures projected to occur under each of the Alternatives, including those Alternatives discussed in Chapter XV, Alternatives to the Project.

C. MITIGATION MEASURES

There are a variety of fiscal mitigation measures that the City Council may consider to alleviate the negative fiscal balance associated with both the Draft General Plan and the Modified Draft General Plan. The Council may choose one mitigation measure to resolve the impact or a combination of measures. The following list of mitigation measures are presented to provide decision makers with an understanding of the range of mitigation measures available and currently in use by other communities.

The fiscal impact analysis of the Draft General Plan and of the Modified Draft General Plan shows that the result of the development designated would be negative on the General Fund Balance, and that at 2010, there would not be sufficient revenue to cover required public service expenditures. It should be noted that where the City chooses to raise a level of service (for example, fire or police services), measures need to be taken to bring the existing residential population up to the new level of service. This analysis has not estimated the cost of providing existing residents with new higher levels of services. Whatever mitigation measures or combination of measures are adopted by the Council, similar measures will need to be applied to existing residents. New development should not and cannot bear the burden of paying for increases in public services for existing residents.

Figure 38

**SUMMARY OF REVENUE AND EXPENDITURES BY
BUDGET ITEM - ALL ALTERNATIVES**

Draft General Plan EIR
City of Winters, California

Budget Item	Alternative I Draft General Plan	Alternative II Modified DGP	Alternative III North Area Specific Plan	Alternative IV Existing General Plan	Alternative V Reduced Urbanization	Alternative VI Compact Plan
REVENUES						
Property Tax	\$1,190,364	\$1,438,164	\$1,737,314	\$1,659,139	\$1,085,420	\$687,514
Sales & Use Tax	\$257,275	\$307,070	\$340,267	\$340,267	\$207,320	\$257,275
Transient Occupany Tax	\$27,375	\$27,375	\$27,375	\$27,375	\$27,375	\$27,375
Property Transfer Tax	\$53,625	\$62,693	\$76,430	\$72,694	\$50,982	\$52,580
Franchise Tax	\$40,556	\$47,516	\$52,157	\$52,157	\$33,594	\$40,556
Municipal Services Tax	\$177,059	\$207,448	\$227,707	\$227,707	\$146,668	\$177,059
Business License Fees	\$21,609	\$25,317	\$27,790	\$27,790	\$17,900	\$21,609
Fines, Forfeitures, and Penalties	\$2,044	\$2,441	\$2,705	\$2,705	\$1,647	\$2,044
Motor Vehicle In-Lieu	\$284,465	\$339,722	\$376,561	\$376,561	\$229,208	\$284,465
Other (State Subventions)	\$125,706	\$150,124	\$166,403	\$166,403	\$101,287	\$125,706
TOTAL, REVENUES	\$2,180,076	\$2,607,870	\$3,034,708	\$2,952,796	\$1,901,400	\$1,676,181
EXPENDITURES						
General Government	\$412,539	\$483,344	\$530,547	\$530,547	\$341,729	\$412,539
Planning Department	\$148,274	\$173,521	\$190,352	\$190,352	\$123,031	\$148,274
Police Services	\$999,637	\$1,193,817	\$1,323,270	\$1,323,270	\$805,457	\$999,637
Fire Services	\$790,350	\$790,350	\$790,350	\$790,350	\$790,350	\$790,350
Parks and Ground Maintenance	\$244,936	\$292,515	\$324,234	\$324,234	\$197,357	\$244,936
Swimming and Rec. Programs	\$35,591	\$42,505	\$47,114	\$47,114	\$28,678	\$35,591
Com. Cen./Other Public Bldgs.	\$101,680	\$121,432	\$134,599	\$134,599	\$81,929	\$101,680
Public Works Adm. and Eng.	\$162,909	\$194,554	\$215,650	\$215,650	\$131,264	\$162,909
Street Maintenance Department	\$207,468	\$186,121	\$171,889	\$171,889	\$228,816	\$15,101
Corporate Yard	\$46,700	\$55,771	\$61,819	\$61,819	\$37,628	\$46,700
TOTAL, EXPENDITURES	\$3,150,084	\$3,533,928	\$3,789,823	\$3,789,823	\$2,766,238	\$2,957,717
GENERAL FUND SURPLUS (DEFICIT)	(\$970,008)	(\$926,057)	(\$755,115)	(\$837,027)	(\$864,838)	(\$1,281,536)

Source: Economic and Planning Systems, Inc.

Economic and Planning Systems, Inc. 10/18/91

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VIII. FISCAL/PUBLIC FINANCING CONSIDERATIONS

The magnitude of the projected negative fiscal balance overtime will vary depending on the actual timing of development, actual demographics, and the timing of raised levels of service in key departments. If desired service standards are implemented as described above, it will be essential to manage new development in such a way as to mitigate potential negative fiscal effects and to adopt a formal set of fiscal mitigations measures.

8.1A The City should consider adopting an annual special tax, such as a Mello-Roos District or a parcel tax, for providing essential services such as fire protection services. Adoption of such an annual special tax and implementation should be placed before the voters of Winters.

The special tax should apply to both new and existing residents in order to increase the levels of service to acceptable standards. A special tax to cover the cost of providing the additional fire services beyond current levels could be created which would distribute the cost to dwelling units and non-residential development based on their ability to bear the burden.

Each dwelling unit would have an annual tax depending of the value of the unit and its revenue and expenditure generating capabilities. If these costs were spread over each new dwelling unit equally, the annual special tax for fire service would be about \$261 per unit for the proposed Project (Alternative I). For the Modified Draft General Plan (Alternative II), the annual tax burden per unit for fire service would be about \$206 per unit, given that this Alternative has more dwelling units over which to spread the burden. This mitigation measure, if adopted, would eliminate the projected fiscal shortfall associated with the proposed Draft General Plan and Alternative II.

If a Mello-Roos District or other special tax is chosen as the preferred mitigation measure an additional study would be prepared to determine an appropriate tax rate for each land use and dwelling unit type. A special tax for the new development could be adopted with a vote of the present property owners; a special tax that applied to the entire city would require the voter approval of all Winters residents.

8.1B The City should consider creating a Landscaping and Lighting District to cover the costs of providing required maintenance of new parks and other landscape maintenance.

The City desires to increase its provision of parkland from the existing standard of 1.2 acres per 1,000 population to at least 3.0 acres per 1,000 population. The cost of maintaining this additional acreage constitutes a substantial increase in public expenditures for this type of service. A Landscape and Lighting District would allow the City to meet this increased standard without over-burdening the General Fund. However, even with a Landscape and Lighting District, the proposed Project would have a negative fiscal balance of about \$400,000.

VIII. FISCAL/PUBLIC FINANCING CONSIDERATIONS

8.1C The City should consider creating a Special Assessment District, such as a landscape and lighting district, to cover the additional maintenance costs associated with the proposed Project.

8.1D The City should consider not raising public service standards for the proposed Project until such time as sufficient revenues to cover the associated expenditures are available.

The City may, for example, choose to construct the new fire station, but continue to operate at a level of service lower than that analyzed in this document. The Fire District has indicated that if necessary it could operate the new station with a full-time staff during the day with staff on-call for evening and night hours. This policy would require that all fire fighting personnel live in Winters.

The City Council may choose not to develop additional park acreage beyond the current standards until sources of revenue to fund the associated maintenance costs are identified.

The City Council may choose to slowly increase the level of service for street maintenance as revenues become available. However, it should be noted that inadequate annual street maintenance can result in high reconstruction and street repair costs at a later date.

8.1E Should the implementation of the above-mentioned mitigation measures be infeasible or not approved by voters, the City Council should adopt a General Plan with a lesser or greater net new population.

Provision of public services at levels proposed in this analysis indicate that there would not be sufficient revenues to cover the associated costs. It is not clear or certain if the annual negative balance of \$970,000 could be fully mitigated with special taxes. One factor that should be considered is the additional annual burden that would be placed on new and existing residential units under the proposed project. Given that the levels of service proposed in this section are not above current levels of services in other surrounding communities, home buyers may be unwilling to purchase homes with additional annual special taxes in order to obtain levels of services that are considered basic in other larger communities. A detailed financial and market analysis of mitigating the negative fiscal balance would need to be undertaken, if the City Council approves the General Plan as proposed.

As an alternative to special taxes, if the City goes forward with increasing levels of service such as providing full-time fire protection services and better street maintenance, the City Council should consider adopting a General Plan which more closely matches the revenue generating capabilities with the associated expenditures. This could be accomplished by a lower population than proposed or a higher population.

VIII. FISCAL/PUBLIC FINANCING CONSIDERATIONS

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IX. BIOTIC CONSIDERATIONS

A. SETTING

1. Vegetation

Historically, the natural vegetation pattern in the Winters area consisted of native valley grasslands with scattered oaks and brush along the drainage ways and foothills to the west. Extensive riparian woodland and scrub existed along Putah and Dry Creeks. The current patterns of vegetation in and surrounding the city of Winters are predominantly man-made, due to clearing, cultivation and settlement.

The undeveloped portions of the Winters Planning Area currently are characterized by scattered homesites, cultivated cropland, orchards, pasture, vacant land and limited urban uses. Hay, grain and row crops (e.g., alfalfa, wheat, tomatoes) dominate the area. Orchards, planted primarily with walnut trees, are more dominant to the south and west of Winters. Common plant species found along the borders of fields and fallow land include: alfalfa, rye grass, barley, wild oats, wheat, Johnson grass, blackberry, burr clover, sweet clover, turkey mullein, watergrass, filaree, lana vetch, lupine, yellow mustard, buttercup, California poppy, valley live oak and eucalyptus.

Less human influence has been exerted on the strips of land immediately adjacent to Putah Creek, Dry Creek and a few steeper slopes northwest of Winters. Riparian woodland and wetland habitat is found along Putah Creek, a perennial watercourse which forms the southern boundary of the existing city and the General Plan area. Willow thickets and short lived herbs occur along the creek and low-lying gravel and silt bars. Cattails, tules and sedges are found in freshwater marshes created by beaver dams or other obstructions. Dense, diverse riparian forest occupies the terrace above the streambed, and is dominated by cottonwood and willow, along with black walnut, ash, box elder, alder, sycamore, and buckeye. In open canopy areas an herbaceous understory of wild grape, wild rose, elderberry, poison oak, and coyote brush are present. Higher undisturbed terraces are vegetated with valley oak woodland, with an elderberry understory and ground cover of non-native annual grasses. Disturbed areas along Putah Creek are vegetated with native shrubs, rows of eucalyptus, or non-native species common to riparian areas such as black locust, tamarisk, giant reed, tree of heaven, and tree tobacco.

Riparian habitat along the lower reaches of Dry Creek is less extensive, due to its intermittent flow and the encroachment of adjacent agricultural and residential development. The east bank within the General Plan area is nearly completely developed with old neighborhoods and new subdivisions. A band of valley oak, cottonwood, black walnut, and willow occurs along the west bank, beyond which lie walnut orchards and cultivated fields. The Dry Creek channel is deeply incised and the stream banks are free of vegetation due to erosion during storm flood flows. Efforts have been made to stabilize the banks along this reach, including encroachment and rip rap installation during construction of two new residential subdivisions.

2. Wetlands

Although definitions vary to some degree, wetlands are generally considered to be areas that are periodically or permanently inundated by surface or ground water, and support vegetation adapted for life in saturated soil. Wetlands are recognized as important features on a regional and national level due to their high inherent value to fish and wildlife, use as storage areas for storm and flood waters, and water recharge, filtration and purification functions. In addition to the Putah and Dry creek corridors, other potential wetlands in the General Plan areas include Moody Slough, irrigation ditches, and a large depression northwest of the cemetery which is subject to short periods of ponding after heavy rains and seasonal flooding in wetter winters. It is possible that more detailed analysis would indicate additional wetland features, depending on the classification system used for delineation.

The CDFG and Corps have jurisdiction over modifications to river banks, channels and other wetland features. Jurisdiction of the Corps is established through the provisions of Section 404 of the Clean Water Act, which prohibits the discharge of dredged or fill material into "waters" of the United States without a permit (individual or nationwide permit). The Corps uses three mandatory technical criteria to determine whether an area is a jurisdictional wetland, emphasizing the delineation of the upper boundary of identified wetlands. All three of the identified technical criteria (hydrophytic vegetation, hydric soils, and wetland hydrology), must be met for an area to be identified as a wetland under Corps jurisdiction.

The USFWS classification system is used by the CDFG to determine wetlands in the state. This classification system is generally more encompassing than that used by the Corps, requiring that only one of three criteria (hydrophilic vegetation, hydric soils, and wetland hydrology) be met for an area to be considered wetlands, rather than all three as required by the Corps. Jurisdictional authority of the CDFG over wetland areas is established under Fish and Game Code Sections 1601-1606, which pertains to activities that would disrupt the natural flow or alter the channel, bed, or bank of any lake, river, or stream. The Fish and Game Code stipulates that it is "unlawful to substantially divert or obstruct the natural flow or substantially change the bed, channel or bank of any river, stream or lake" without notifying the Department, incorporating necessary mitigation, and obtaining a Streambed Alteration agreement with the Department. The Wetlands Resources Policy of the CDFG states that the Fish and Game Commission will "strongly discourage development in or conversion of wetlands...unless, at a minimum, project mitigation assures there will be no net loss of either wetland habitat values or acreage".

3. Wildlife

Wildlife in the Winters area is typical of a small community surrounded by agricultural lands. Common wildlife species found in the area include: harvest mouse, gopher, ground squirrel,

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jackrabbit, coyote, turkey vulture, hawk, quail, pheasant, dove, barn owl, crow, scrub jay, robin, meadowlark, blackbird, and sparrow. Ponding on soils with higher clay content after rains may attract ducks and geese during winter months. Reptiles common to the agricultural areas include: gopher snake, king snake, racer, and fence lizard. Irrigation ditches and drainage sloughs provide a source of water and some limited wetland habitat.

The riparian woodland and wetlands along Putah Creek provide the most important wildlife habitat in the Winters area due to the density and diversity of the flora, fairly undisturbed conditions, and perennial surface water flows. This riparian corridor provides forage, cover, and breeding habitat, and migratory corridor for a wide variety of mammals, fish, water birds, raptors, and passerine birds. Beaver actively use Putah Creek in the Winters area, as evidenced by dams, and girdled trees (refer to Appendix C for a list of wildlife species potentially occurring along Putah Creek near Winters).

4. Special-Status Taxa

A number of plant and animal taxa with special status have geographic ranges which encompass the Winters area or have been observed in the Project vicinity according to occurrence records maintained by the Natural Diversity Data Base of the California Department of Fish and Game (CDFG). Special-status taxa include: officially designated (rare, threatened, or endangered) and candidate species for listing by the California Department of Fish and Game; officially designated (threatened or endangered) and candidate species for listing by the U.S. Fish and Wildlife Service (USFWS); taxa considered to be rare or endangered under the conditions of Section 15380 of the California Environmental Quality Act (CEQA) Guidelines (Ref. B), such as those identified on lists 1A, 1B, and 2 in the Inventory of Rare and Endangered Vascular Plants of California (Ref. 13), and other taxa which are considered sensitive or of special concern due to limited distribution or lack of adequate information to permit listing or rejection for state or federal status, such as those included on list 3 and 4 in the California Native Plant Society Inventory or identified as "Species of Special Concern" by the California Department of Fish and Game. Information on taxa reported or suspected to occur in the Winters area is summarized below.

Swainson hawk (*Buteo swainsoni*).

Swainson hawk is listed as a state threatened species. The Natural Diversity Data Base indicates a possible nest site about seven miles northeast of the General Plan area. However, an active Swainson hawk nest has been observed during intensive surveys about three miles east of Winters along Putah Creek (communication with Jim Estep, Jones and Stokes Associates, 1990). Swainson hawk have also been observed foraging for small mammals and birds in the agricultural fields north and east of Winters, including agricultural lands within the General Plan area. Hay and grain crops, such as alfalfa and wheat, certain row crops, such as tomatoes and beets, and low growth pastures and fallow fields not dominated by thistle provide important foraging habitat for the Swainson hawk, particularly after harvest, discing or flooding.

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Swainson hawk is a summer breeding resident of the Central Valley, generally occurring in areas where riparian woodland and surrounding agricultural lands provide roosting, nesting and foraging habitat. The loss of nesting and foraging habitat has greatly reduced the breeding range and abundance of Swainson hawk in California, with an estimated decline of 90 percent in the breeding population between 1900 and 1979 (Ref. C). Originally adapted to open grasslands, the hawk has become increasingly dependent on agricultural lands as native plant communities have been converted to agricultural uses. In recognition of this dramatic decline in population, and loss of critical foraging and nesting habitat, the hawk was designated as a threatened bird species by the Fish and Game Commission in 1983.

Agricultural crop patterns currently influence the distribution and abundance of Swainson hawk in the Central Valley, and foraging behavior reflects changes in prey density and availability. Suitable foraging habitat includes open grassland or lightly-grazed dryland pasture, alfalfa and other hay crops, fallow fields, and combinations of hay, grain, and row crops such as tomato and sugar beets. Unsuitable foraging habitat includes any crop-type in which prey are inaccessible, or which do not support adequate prey populations, such as vineyards, orchards, rice, and cotton. Expansion of these crop types will continue to eliminate Swainson hawk foraging habitat, contributing to the continued reduction of the breeding population in the Central Valley.

Large, open expanses of foraging habitat adjacent to or within an estimated 10 mile radius are required for nesting, with distance from nest site and availability of suitable crop types considered to be limiting factors to successful reproductive performance. Except where existing urban development or unsuitable crops are cultivated, much of the Winters area meets these two basic criteria used by the CDFG in determining whether a particular area provides suitable foraging habitat for Swainson hawk. Although foraging habitat is commonly proximate to nest sites, Swainson hawk have been documented foraging up to 18 miles from a nest (Ref. D). The hawk is very sensitive to habitat fragmentation, and is known to avoid otherwise suitable foraging habitat where prey populations may exist but large lot "ranchette" development has occurred.

Western yellow billed cuckoo (*Coccyzus americanus occidentalis*).

This subspecies is listed as a State threatened taxa. Western yellow billed cuckoo is a summer breeder in California, and generally occurs along corridors of dense riparian woodland and nearby orchards in the Central Valley and along the Colorado River. This subspecies is dependent on its primary food source, caterpillars, which generally occur within well-developed riparian forests. There are no records of western yellow billed cuckoo nesting along Putah Creek (Ref. 25), and the narrow band of riparian vegetation provides only poor to marginally suitable breeding habitat, making their occurrence in the Winters area unlikely.

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Tricolored blackbird (*Agelaius tricolor*).

The tricolored blackbird is a candidate species (category 2) for Federal listing. Although it has declined substantially in recent years, the tricolored blackbird is widespread in marshes and agricultural fields of the Central Valley. Colonies often are found along irrigation ditches and other waterways where dense cattail or bulrush provide nesting substrate and protective cover. The decline of this species is likely the result of several factors, including: disturbance during the breeding season; competition with other blackbird species such as red-winged blackbird; destruction of suitable breeding habitat; and poisoning by farmers to control blackbird populations which feed on agricultural crops. Several channels provide moderate nesting habitat for tricolored blackbird in the Winters area, although no sightings of this species have been recorded from the area.

Mountain plover (*Charadrius montanus*).

Mountain plover is a candidate species (category 2) for Federal listing. This small plover winters in the Central Valley of California, feeding in grassland and agricultural fields. The plover has been occasionally observed in agricultural fields in Yolo County, and individuals may occasionally frequent the Winters area as part of their winter range.

Burrowing owl (*Athene cunicularia*).

Burrowing owl has no State or Federal listing, but is recognized as a Species of Special Concern by the CDFG. The owl is a ground nesting species known to occupy rodent burrows throughout open uplands in the Central Valley. Destruction of California ground squirrel colonies, conversion of pastureland to agricultural and urban development, poisoning, and human disturbance have been the major reasons for the decline of this species. Nesting birds have been observed to the west of the Yolo County Airport. Suitable habitat occurs in the Winters area where intensively managed agricultural crops and human disturbance have not curtailed nesting.

Pacific western big-eared bat (*Plecotus townsendii townsendii*).

This western subspecies of big-eared bat is a candidate taxa (category 2) for Federal listing and a CDFG Species of Special Concern. Big-eared bat is a colonial species, with individuals showing great fidelity to both their group and chosen roost sites. Although big-eared bat is generally a cave dwelling species, the two western subspecies are more frequently found in mine tunnels and buildings. Unlike many bat species which take refuge in crevices, big-eared bat will only roost in the open, hanging from walls and ceilings where it is particularly vulnerable to disturbance. Winters is within the known geographic range of Pacific western big-eared bat, and although no reported sightings of the bat have been made, there is a slight possibility that existing structures, such as abandoned buildings or upper levels of barns, provide roosts for a bat colony.

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California tiger salamander (*Ambystoma tigrinum californiense*).

The California tiger salamander is a candidate taxa (category 2) for Federal listing and a CDFG Species of Special Concern. The distribution of this subspecies has declined due to the conversion of valley and foothill grassland habitat to agricultural and urban uses. Adults are believed to occupy burrows of California ground squirrel and other rodents for much of the year, migrating to nearby water sources to breed following the first hard rains in fall or winter. The salamander breeds in temporary pools and permanent water, usually associated with grassland and open woodlands, where the water source lasts at least through late spring to permit development of larval young. The extent of modification to upland retreat habitat along Putah and Dry creeks limits the likelihood of occurrence within the Winters area, although no detailed studies have been conducted to confirm the presence or absence of this subspecies. Protection of vernal pools, ponds, and other suitable breeding and upland habitat is critical for the survival of this subspecies.

Valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*).

Valley elderberry longhorn beetle (VELB) is a Federal threatened taxa, and has been reported at several locations along Putah Creek. During a survey of Putah Creek in the Winters area by the Putah Creek Advisory Committee conducted in February 1989, adult beetle holes were observed in branches and stems of elderberry bushes (*Sambucus mexicana*) at two locations. This natural resource survey was not intended as a complete survey for the VELB; other elderberry bushes with exit holes are likely, and adult beetles may be present at the proper time of year.

The VELB is restricted to riparian areas in the Central Valley of California, where its host plant, the blue elderberry, occurs. The VELB depends on the valley elderberry for the completion of its life cycle, consuming the foliage and depositing eggs in the pith of branches and stems. The larvae consume pith and cut holes in the stem as they emerge. These exit holes are readily identifiable and their presence is an indication of the occurrence of the beetle. The adults emerge from the elderberry stems, fly, mate, and deposit eggs during the flowering period of the elderberry. Loss of habitat in California has led to the listing of this subspecies as threatened (Refs. 25 and 44). Protection of elderberry shrubs is critical for protection of the subspecies. The USFWS considers any stand of elderberry to be potentially suitable habitat for the beetle, and generally requires that existing plants be protected, transplanted, or replaced at ratios of from 3:1 to 5:1.

Adobe lily (*Fritillaria pluriflora*).

Adobe lily is a candidate plant taxa (category 2) for Federal listing. Populations have typically been reported from chaparral, open woodland and valley grassland plant communities, often on

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adobe soils. No populations have been recorded from the Winters area, and most have been reported to the southwest along the slopes of the interior foothills of the Coast Range. A questionable occurrence record for this species was made approximately ten miles southwest of Winters in 1925.

B. IMPACTS

1. Vegetation

The primary biotic impact of implementation of the General Plan would be the permanent loss of agricultural habitat to urban development. Full development under the General Plan would result in the conversion of approximately 1,231 acres of cultivated fields, orchards, pastures and vacant lands to residential, commercial, industrial and public uses. The impacts directly related to the conversion of agricultural land to urban uses is addressed in Chapter XIII. Future development may also affect mature trees, both as a result of direct removal and as a result of secondary effects such as changes in drainage patterns, landscape irrigation, and creation of impervious surfaces within the dripline of individual trees. In addition to their aesthetic resource values, mature trees provide important nesting and roosting habitat which would be lost with tree removal. The City's existing Historical Tree Ordinance provides some protection for specifically-identified important trees.

Riparian woodland and wetland habitat could potentially be lost or disturbed as a result of future development along Putah and Dry creeks, or from secondary effects such as increased recreational use along these corridors. Anticipated future development would increase flood flows and velocities, with an estimated 4 percent increase to the 10-year flood flow of Putah Creek and 3.4 percent increase to the 10-year flood flow of Dry Creek. Although these increases may contribute to localized erosion problems, such as increased scour and bank migration, the bank and channel bottom configuration of the stream corridors are constantly changing and this contribution would not be considered significant. Where future development impinges on the stream corridors, however, bank modifications and resulting changes in stream flows may contribute to severe erosion, as evidenced along Dry Creek where two recent residential subdivisions have reduced the channel width and replaced a natural bank with concrete rip rap, resulting in channel scouring and vegetation loss on the opposite bank.

The Draft General Plan, together with the Modified DGP, includes policies in the Natural Resources section which would reduce the effects of urban development on vegetation. The Natural Resources section directs the City to require site-specific surveys to identify important vegetation resources in riparian or wetland areas (VI.C.1), 50- to 100-foot setbacks along Putah and Dry Creeks, and to develop recreational trails and facilities along those Creeks with

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sensitivity to wildlife habitat and riparian vegetation habitat, using detailed habitat management principles. Those principles include re-placing non-native trees and shrubs with native species, and prohibiting new irrigation and planting within the dripline of native oaks (Goal VI.D, Policies VI.D.1-4). Guidelines are to be developed in cooperation with CDFG, the Army Corps of Engineers, Yolo and Solano Counties, and the Putah Creek Council for erosion control measures, or slope stabilization (VI.D.5). The DGP also directs the City to discourage premature conversion of agricultural land to urban uses, to encourage agricultural uses until such time development is imminent, and to adopt a right-to-farm ordinance (Goal VI.B, Policies VI.B.1,2,4). These policies of the Natural Resources section could reduce the severity of vegetation impacts, particularly along Putah and Dry Creeks, but could not avoid the ultimate, significant loss of such resources in agricultural areas.

9.1 The impacts of the Draft General Plan and the Modified DGP on vegetation in agricultural areas would be significant.

2. Wetlands

In addition to the Putah and Dry Creek corridors, jurisdictional wetlands may exist along Moody Slough and other drainage channels, irrigation ditches, seasonally ponded depressions, and other features. Modifications to waterways and other wetland features would be subject to jurisdictional review and approval by the Corps and possibly the CDFG. Further review by representatives of these two agencies would focus on minimizing disturbance to the existing riparian corridors, with landscape planting provided as necessary to replace any native vegetation removed as a result of improvements. As discussed previously, the objective of the CDFG is to ensure no net loss of either habitat acreage or value. Depending on the extent of proposed disturbance and quality of affected habitat, required mitigation ratios may vary from simple inkind replacement to as high as 3:1 wetland replacement.

Policies contained in the Natural Resources section of the General Plan serve to ensure that development does not result in a net loss of riparian or wetland habitat, including provisions for appropriate setbacks along Putah and Dry creeks, planting with native species, guidelines for erosion control methods and habitat enhancement objectives (VI.C.1-9).

Impacts on wetlands of Alternatives I and II would not be significant, but could require additional, more specific mitigation measures to be defined.

3. Wildlife

The loss of agricultural lands would result in the permanent loss of smaller, less mobile wildlife species, and the loss or displacement of more mobile species to surrounding agricultural lands

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that are not already at carrying capacity for those species. Adjacent agricultural lands of similar habitat value are extensive in the Winters area and throughout much of the Central Valley. Therefore, although some individual habitats would be lost, most species would not be significantly affected.

Effects of the loss of agricultural lands on wildlife (exclusive of special status species) would not generally constitute a significant impact.

4. Special-Status Taxa

Anticipated future development in the Winters area would further reduce the available habitat for a number of special-status taxa, and may affect critical features such as nesting and roosting sites or important foraging habitat. In particular, future development would contribute to a reduction in foraging habitat for Swainson hawk, and in the absence of adequate mitigation, may constitute "taking" under Section 2081 of the California Endangered Species Act and the Migratory Bird Treaty Act of 1918. Habitat loss is the most significant threat to the remaining subpopulations of Swainson hawk, as agricultural practices change or agricultural lands are converted to urban uses, and as nest trees are destroyed. The loss of nesting and foraging habitat has greatly reduced the breeding range and abundance of Swainson hawk in California, and the CDFG has developed detailed mitigation guidelines in an effort to protect critical habitat for this species.

The Mitigation Guidelines for Swainson's Hawk in the Central Valley of California (Ref. 11) were prepared by the CDFG to provide information on recommended management, natural history and population status, nesting and foraging requirements, and mitigation criteria for Swainson hawk, with a general goal of no net loss of breeding or foraging habitat. The guidelines are intended to provide lead agencies and project sponsors with an interim framework for developing adequate measures to mitigate the loss of habitat until a comprehensive Swainson Hawk Habitat Resource Plan is completed by the Department. The mitigation criteria specified in the guidelines include: consultation with representatives of the Department; restrictions on disturbance within on half mile of a known nest site from March 1 through August 15; prevention of loss of nest trees; maintenance of sufficient foraging habitat to support breeding pairs and successful fledging of young; and restoration and enhancement of nesting and foraging habitat. A copy of the mitigation guidelines is contained in Appendix D for review.

Recreational development, flood control modifications, or future development in the vicinity of Putah and Dry creeks could result in the disturbance or loss of valley elderberry longhorn beetle habitat. Elderberry shrubs may occur at other locations throughout the General Plan area as well, particularly along other drainage or irrigation features. Although the Natural Resources section of the General Plan includes policies to protect sensitive resources along Putah Creek and habitat for special status taxa in general, no specific provisions have been developed to protect habitat for the beetle. A copy of general compensation guidelines for the valley elderberry longhorn beetle is contained in Appendix E for review.

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Although the extent of past disturbance limits the likelihood of occurrence or importance of the Winters area for many special-status plant and animal taxa, additional studies would be necessary to conclusively determine whether a number of taxa of concern occur in the area and may be affected by future development. These include: taxa associated with riparian corridors and other wetland features (such as tricolored blackbird, valley elderberry longhorn beetle, and California tiger salamander); taxa associated with largely undisturbed areas (such as burrowing owl); and nest or roost sites for raptors and other taxa of concern (such as pacific western big-eared bat). If special-status taxa occur along wetland features or largely undisturbed areas, future development may adversely affect established populations unless protective measures are identified and implemented.

The Draft General Plan directs the City to participate in local and regional activities which protect, restore and maintain viable habitat for endangered and threatened species, with the aim of developing a region-wide Habitat Resources Plan (VI.C.4).

- 9.2** The impacts of development under Alternatives I and II would have a significant impact on special-status taxa, and would require the implementation of regional habitat mitigations.

C. MITIGATION MEASURES

1. Vegetation

- 9.1** Consistent with policies contained in the General Plan, future landscaping along public right-of-ways, parks, schools, and private developments within the Winters area shall emphasize the use of native plant species to the extent possible. Suitable native species for use in landscape improvements include: valley oak (*Quercus lobata*), live oak (*Quercus agrifolia*), sycamore (*Plantus racemosa*), Fremont cottonwood (*Populus Fremontii*), California buckeye (*Aesculus californica*), black walnut (*Juglans hindsii*), toyon (*Heteromeles arbutifolia*), oso berry (*Osmaronia cerasiformis*), California rose (*Rosa californica*), California blackberry (*Rubus vitifolius*), elderberry (*Sambucus mexicana*), box elder (*Acer negundo* ssp. *californicum*), dwarf coyote brush (*Baccharis pilularis*), California buckwheat (*Eriogonum fasciculatum*), and purple needle grass (*Stipa pulchra*).

This measure would reduce the impact of Alternatives I and II to a less-than-significant level.

2. Wetlands

- 9.2A** Preparation of any plans to modify channels and other wetland features (such as bridge crossings, flood control improvements, or culverting) shall be designed to minimize disturbance to areas of dense riparian and marshland cover consistent with policies contained in the Natural Resources section of the General Plan. Any proposed channel modifications shall be coordinated with representatives of the CDFG and Corps to ensure that the concerns and possible requirements of both agencies can be easily incorporated into specific development plans during the initial phase of project design. Where wetland features are present, jurisdictional determinations and appropriate mitigation will be required subject to the provisions of Section 404 of the Clean Water Act and Sections 1601-1606 of the CDFG Code. Preliminary determinations and coordination with jurisdictional agencies shall be completed prior to approving specific development plans on parcels with wetland features.
- 9.2B** Any necessary flood control or drainage improvements to existing channels and other waterways shall be designed to minimize disturbance to the wetland vegetation, including both emergent and woody plant cover. Strategies available to minimize disturbance (presented in decreasing order of preference) include: use of detention basins; creating bypass channels; and selectively protecting individual mature trees and reestablishing young trees, shrubs and groundcover vegetation following channel modifications. If channel widening or other modifications are determined to be unavoidable, improvements shall be designed to permit reestablishment of emergent and dense woody vegetation without impinging on the required flood control capacity of the channel.

The above measures would reduce the impact of Alternatives I and II to a less-than-significant level.

3. Special Status Taxa

- 9.3A** Prior to approving specific development plans, parcels encompassing or adjacent to riparian and other undisturbed habitat shall be surveyed for special-status plant and animal taxa to confirm that populations of taxa of concern would not be affected by the proposed development. The field surveys shall be conducted by a qualified biologist, and as necessary, shall be conducted during the appropriate time of the year to detect the presence of taxa of concern. If taxa of concern are encountered during the detailed field surveys, appropriate measures shall be developed to minimize disturbance and protect identified populations.

- 9.3B** A qualified consultant shall be retained by the City and other interested agencies to coordinate preparation of a Swainson Hawk Habitat Resource Plan (HRP) to provide a comprehensive approach to habitat protection, mitigation, and enhancement in the Winters area. The City shall consider developing a coordinated HRP in consultation with the CDFG, Yolo County and other local jurisdictions in the surrounding area, which meets with the approval of all agencies involved in the Plan. Preparation of a comprehensive HRP would seek to preserve and enhance lands and resources that provide foraging and nesting habitat for Swainson hawk, and possibly other special-status taxa as well. **The impact of Alternatives I and II on the habitat of the Swainson's Hawk will remain cumulatively significant and unavoidable.**

Until the Habitat Resource Plan and local fee ordinance are completed, each applicant for specific development plans in the Winters area shall be required to prepare a project-specific Swainson Hawk Mitigation Plan consistent with the CDFG Mitigation Guidelines, or alternatively, shall enter into a Memorandum of Understanding with the City to ensure that the proposed project will be subject to the provisions of the recommended ordinance, with a required fee contribution made by the applicant once adopted.

- 9.3C** Elderberry plants within the Winters area shall be assumed to support the valley elderberry longhorn beetle, and adequate measures shall be taken to protect these plants consistent with the USFWS Compensation Guidelines, which shall be incorporated into proposed open space areas where possible. Any modifications or possible removal of plants shall be coordinated with representatives of USFWS, and mitigation provided as specified on a case by case basis.

Putah Creek shall be surveyed for evidence of Valley elderberry longhorn beetle throughout the General Plan area prior to any recreational development. Parks and trails shall avoid the relatively undisturbed mixed riparian forest community and all known locations of the VELB, and shall avoid elderberry clumps and clusters wherever possible. Elderberry plantings shall be included in the restoration and conservation plan for Putah Creek. The Putah Creek Council and Putah Creek Advisory Committee are working on goals, policies and programs for Putah and Dry Creek, which if implemented by the City of Winters, will provide for the protection and enhancement of biological values along these riparian corridors while providing for compatible recreational use. This impact can be reduced to an insignificant level or avoided with effective implementation of the mitigation measures.

- 9.3D** Prior to approving specific development plans on parcels with large trees, adjacent to riparian and marshland habitat, or with habitat suitable for ground-nesting sites, surveys for raptor nests shall be conducted by a qualified biologist. If nests are encountered, an

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appropriate buffer zone shall be established based on topography, vegetative screening, and adjacent habitat, and construction activities shall be prohibited within this zone during the nesting season (nesting season is typically from May through June). Representatives of the CDFG and USFWS shall be consulted to determine whether the nest tree or burrow shall be protected and a permanent buffer established to ensure future use or whether the nest site may be destroyed once the young have fledged in late June or early July.

The above measures could reduce the local impact of Alternatives I and II to a less-than-significant level, but the cumulative impact would remain significant. The impact of Alternatives I and II on the habitat of the Swainson's Hawk will remain significant and unavoidable.

IX. BIOTIC CONSIDERATIONS

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X. GEOLOGY, SOILS, SEISMICITY AND HYDROLOGY

A. SETTING

1. Regional Geology

Winters is located on the western side of the Sacramento Valley (see **Figure 1** in Chapter II), which is a large northwest-trending structural trough extending about 150 miles north from the Sacramento-San Joaquin Delta and occupying an area of about 6,000 square miles. It is bounded on the east by the Sierra Nevada and Cascade Ranges and by the Coast Range on the west.

The city is located in the western portion of the Putah Plain, a physiographic area within the Sacramento Valley formed from two low-sloping and coalescing fans of Putah and Cache Creeks. Here the alluvial plain is partially dissected by eastward flowing streams that drain the Vaca Mountains to the west. Between the Vaca Mountains and the Putah Plain lie the dissected alluvial uplands of the English Hills. To the east the Putah Plain flattens, becoming topographically featureless (Ref. 27).

Paleozoic and Mesozoic (geologic time periods covering 70 to 600 million years ago) intrusive, metamorphic and marine sedimentary rocks comprise the basement underlying the Sacramento Valley Basin and the adjacent mountains. The basement rocks are found at considerable depths at the margins. At the bottom of the basin the older rocks are overlain by Eocene (36-54 million years ago) marine and continental (non-marine origin) sedimentary rocks (Ref. 32).

Overlying the older sequence of rocks is a thick series of mid-Tertiary to Cenozoic (36 million years ago to present) continental deposits laid in place by streams flowing from the surrounding mountains into the basin, which was subsiding during this time. The principal water-bearing formation on the west side of the Sacramento Valley is the Tehama Formation, which is a clean sand that can range up to 2250 feet in thickness (Ref. 32). Alluvial fans, stream channel deposits, flood plain and flood basin deposits are the most recently deposited materials. Alluvial fans occur mostly on the west side adjacent to the Coast Range. They are relatively thin, but contain highly permeable materials. This assemblage of predominantly sedimentary rocks also includes volcanic mudflows, lava flows, and volcanic ash deposits, all associated with the volcanic action which occurred in the middle to late Tertiary period (Ref. 32).

Alluvial fan deposits of the Putah Plain directly overlie the Tehama Formation. The Putah Plain alluvial fan deposits can be divided into younger and older alluvium (Ref. 32). The younger alluvium covers all of the Putah Plain except near the Coast Ranges where older alluvium is exposed along with the Tehama Formation. The younger alluvium, approximately 30 feet thick, and the older alluvium, up to 140 feet thick, comprise the total thickness of approximately 170 feet. The younger alluvium consists mostly of silt and fine sand, but includes some coarse sand

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and gravel. The older alluvium is more heterogeneous, containing clays, silts and gravels. The older alluvium can be distinguished from the younger alluvium by its abundance of clay and channelized gravel deposits (Ref. 32).

2. Planning Area Geology

The subsurface geology in the Planning Area, as indicated by three geologic borings at the Winters Landfill site drilled to depths up to 95 feet, consists predominantly of alternating layers of silty clays and gravels. These alluvium deposits are believed to be the older alluvium of the Putah Plain fan deposits. These deposits formed as the result of meandering streams which drained the Vaca Mountains to the west. Gravels were deposited on the bottom of stream channels as bedload. Floodwaters that overtopped the natural levees of the stream channels carried silt and clay which were then deposited along the sides of the channels.

3. Soils in the Planning Area

Soil types found within the Winters area are categorized into nine soil associations (Ref. 2). **Figure 39** shows the geographic extent of each soil association. In general, the soils are loams with differing percentages of gravels, silts and clays.

In the western part of the Planning Area, the Corning Gravelly Loam is the dominant soil type. This is a well-drained gravelly loam generally occurring on dissected terraces. Slopes range from 2 to 15 percent. It has high shrink-swell potential, slight compressibility, high to medium strength, and fair to poor stability. In the eastern part of the Project area, the Rincon Silty Clay Loam is the most dominant soil type. The Rincon Series, which overlies the local alluvial fans, consists of well-drained silty clay loams. Slopes range from zero to two percent. It has a high shrink-swell potential, medium compressibility, medium strength, and fair to poor stability. Other soils in the area consist of the Capay Silty Clay, Brentwood Silty Clay, San Ysidro Loam, Arbuckle Gravelly Loam, and Hillgate Loam. These soils have high shrink-swell potentials, medium to high compressibilities, medium to low strength, and fair to good stability. Limitations for septic tank fields for all of these soils are severe (Ref. 2).

4. Seismicity

The western edge of the Sacramento Valley is in a seismically active region of California. Winters is in Severity Zone III, according to the California Division of Mines and Geology, which has the potential for an earthquake that can cause major damage (Ref. 50).

SOIL MAP

- | | |
|------|-----------------------------------|
| AaA | ARBUCKLE GRAVELLY LOAM (CLASS II) |
| AaB | ARBUCKLE GRAVELLY LOAM (CLASS II) |
| BrA | BRENTWOOD SILTY CLAY (CLASS I) |
| Ca | CAPAY SILTY CLAY (CLASS I) |
| CID2 | CORNING GRAVELLY LOAM (CLASS IV) |
| HcA | HILLGATE LOAM (CLASS IV) |
| Rg | RINCON SILTY CLAY LOAM (CLASS II) |
| Sh | SAN YSIDRO LOAM (CLASS IV) |
| SkD | SEHORN COBBLY CLAY (CLASS IV) |

SOURCE: 1984



MARTIN - CARPENTER - ASSOCIATES
CITY AND REGIONAL PLANNERS
GERALD E. EAVIN - COMMUNITY DESIGN

Source: Ref. 33

X. GEOLOGY, SOILS, SEISMICITY AND HYDROLOGY

During the 1892 earthquake, nearly all the brick structures in Vacaville and Winters were destroyed and many frame buildings were damaged. Chimneys were twisted and thrown down. Fissures were found in the bed of Putah Creek and the adjoining roadway and fields one half-mile west of Winters. The shock was felt from Healdsburg to Fresno and east to Nevada (Ref. 50).

In the past, the 1892 earthquake has been attributed to the Midland Fault because traces of the fault have been mapped through the east and west sides of Winters. However, the Midland Fault is not considered to be active by the California Division of Mines and Geology because it is buried along much of its length and there is no evidence that recent geologic units have been cut by the fault. It is possible that the 1892 earthquake could have had a deep source, with no corresponding surface expression. The estimated maximum probable earthquake magnitude for the Midland Fault is 7.0 on the Richter Scale (Ref. 3).

The downtown area of Winters contains several unreinforced masonry buildings, which are among the types of buildings which are most susceptible to structural failure in the event of an earthquake. However, the majority of buildings have wood frame construction, which is more resistant to groundshaking. The redevelopment of the central business district will initiate programs to rehabilitate the unreinforced masonry buildings, in order to improve the safety of persons in the area.

5. Regional Hydrology

The Tehama is the principal water-bearing formation on the west side of the Sacramento Valley. Due to its widespread distribution and thickness, the overlying alluvial deposits of the Putah Plain are generally more permeable than the Tehama Formation. However, the limited thickness of alluvium makes it a relatively unimportant source of water in the Western Sacramento Valley (Ref. 32).

Depth to groundwater ranges from several feet in the central portion of the Sacramento Valley to over 100 feet near the western margin. Groundwater levels have been steadily declining in many areas of the Sacramento Valley since the 1940s (Ref. 32). Groundwater generally flows east and southeast from the western margin of the Sacramento Valley.

6. Local Hydrological Conditions

There are no perennial surface streams within the Project area. The drainage pattern of the intermittent streams, which catch and drain the runoff during the wet season, is generally to the south-east. Dry Creek forms the southwestern boundary of the Project area, and Putah Creek, the main

X. GEOLOGY, SOILS, SEISMICITY AND HYDROLOGY

creek in the area, forms the southern boundary of the Project area. Putah Creek originates from Lake Berryessa and flows to the east from Monticello Dam.

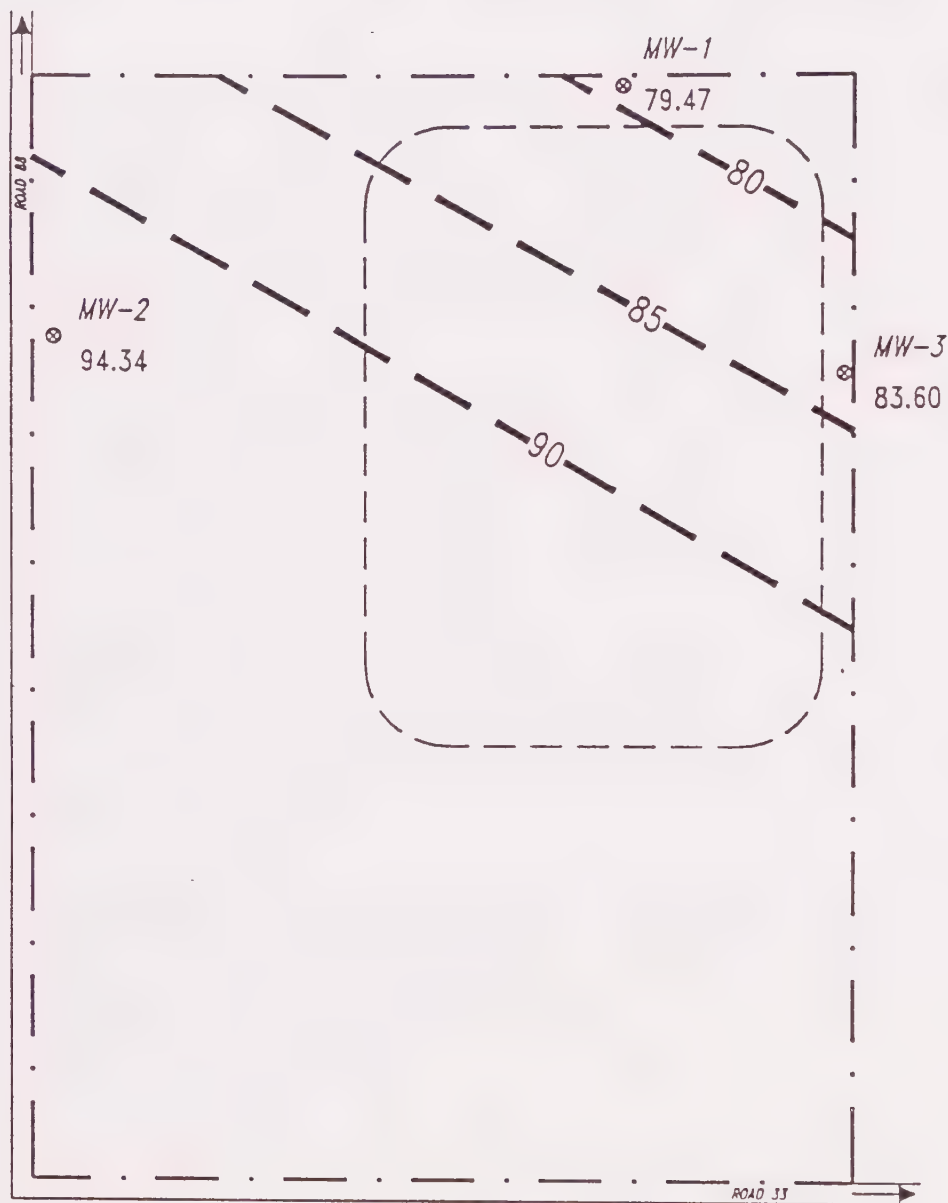
The Planning Area of the DGP includes the old City of Winters landfill site which operated from approximately 1929 to 1975, when about 10 of the 30 acres were used as a refuse pit, and eventually as a mound. Although information on the wastes disposed in the pit and on the mound is anecdotal, materials are purportedly mostly household wastes (including refrigerators and water heaters), with minor amounts of agricultural and industrial wastes. Auto bodies, engine blocks, metal wire, asphalt and concrete are also identified as among the materials disposed of at the site (Ref. 24, pages 5- 1-3).

From past experience, it is recognized that landfills are a potential source of contamination to groundwater bodies. For this reason, the Calderon Bill was enacted in California, which requires municipalities to perform Solid Waste Assessment Tests (SWATs) on their landfills to assess whether leachate has been generated that could contaminate groundwater.

The proponents of development in the northern part of the city have proposed that the pit area be graded and developed as part of a golf course, and that most of the remaining area be sold for residential development, contingent upon the resolution of all environmental considerations associated with the landfill site (Ref. 33, page XI-18). The primary environmental concern is the control of potential groundwater contaminants, since the city relies principally upon groundwater for its drinking water.

A portion of the Solid Waste Assessment Test (SWAT) study (Ref. 24) of the landfill was completed in January of 1990 which addressed the quality of groundwater which could potentially be contaminated by refuse in the landfill pit. **Figure 40** shows the outline of the pit area, the estimated elevation of groundwater in the area, and specifically at the three monitoring wells as measured during December 1989. Elevation of groundwater is determined by measuring the depth to groundwater, which is between 60 and 70 feet below ground surface in the landfill area, and subtracting that number from the surveyed elevation of the well top.

Most of the groundwater is stored and transmitted in the more permeable gravel layers. The regional groundwater flow direction is to the southeast. However, beneath the landfill site, the flow direction was determined to be to the northeast with a hydraulic gradient of 0.025 ft/ft (Ref. 24, page 5-3).



LEGEND:

- . — PROPERTY BOUNDARY
- APPROXIMATE BOUNDARY OF REPORTED REFUSE PIT AND MOUND
- 80 — GROUNDWATER ELEVATION CONTOUR (IN FEET)
(Referenced to Mean Sea Level)
- ⊗ LOCATION OF MONITORING WELLS



Figure 40
OLD LANDFILL SITE: GROUNDWATER ELEVATIONS
 Draft General Plan EIR
 City of Winters, California

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Based on the chemical analyses of groundwater samples from three monitoring wells installed on the landfill property, no conclusive indication of contamination was detected in the groundwater beneath the landfill site (Ref. 24, pages v-vi). The thick sequences of clays and silts beneath the site are well suited to preventing contaminant migration, as they are relatively impermeable. However, the gravel sequences underlying the site could provide a conduit for leachate to migrate off site, potentially contaminating downgradient groundwater bodies. Lead was detected at levels exceeding state and federal drinking water standards, but additional monitoring, exploratory borings and analysis is recommended before conclusive results are known (Ref. 24, page 6-1).

A determination of the actual potential for significant impacts would require detailed characterization of the landfill site to determine the nature and extent of hazardous materials within the landfill site. It may be necessary to define restrictions to development on the landfill site, which might result in the exclusion of ponds or lakes, trees with deep root systems, and buildings or structures on the site.

The proposed development of the old Winters landfill into a golf course would result in irrigation of the site, which could potentially increase the leaching of toxins and contaminants from the existing waste material into the groundwater. Any such increase could have significant, adverse impacts on the quality of drinking water in the area, with potential related health effects. At the present time, however, the proposal to construct a portion of the golf course on this site is not specified as part of either the proposed Draft General Plan, or Alternative II, or in other components of the Project, but is included in the definition of one of the Project Alternatives (the North Area Specific Plan/Existing General Plan, Alternative III), and its potential impact on water quality is evaluated in Chapter XV, Alternatives to the Project.

B. IMPACTS

Development in the DGP area which results in an increased risk of exposure of people and property to destructive seismic events would be an unavoidable effect of a substantially increased population in the Winters area. The potential for personal injury and property damage in the planning area due to groundshaking, soil instability, or liquefaction cannot be eliminated absolutely, but a variety of available building techniques and related measures can provide a substantial degree of protection. However, a failure to provide the highest degree of assurances that available means of protection against personal and property damage have been applied to new construction, would represent a significant adverse impact.

Due to the deep alluvial soils that are characteristic of the Winters area, the consequences of an earthquake could be significant ground shaking, ground rupture, liquefaction (transformation of a

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geologic material into a fluid-like state), and differential settling of unconsolidated soil and fill areas. Although the ground-shaking intensity may vary due to a number of factors (i.e., magnitude, distance from epicenter, and properties of the underlying geologic materials), it is estimated that the Project area could experience a maximum Modified Mercalli Scale Intensity of VIII to X (major damage to structures).

Landslides are not considered a significant threat in the area because the surface slope is slight and the surface materials are generally well compacted. However, landslides could conceivably occur where there are steep slopes, such as along creek embankments, combined with saturated soils due to heavy precipitation and groundshaking due to a major seismic event.

The potential for surface rupture in the area is considered low, although surface fissures occurred as the result of the 1892 earthquake. Differential settling, a form of ground failure, could occur in the landfill area where there is unconsolidated, uncompacted fill. This could present a hazard if this were a public-use area at some time in the future. Also, rupture of the final landfill cover would be a hazard by allowing surface water to infiltrate into the landfill, thereby increasing the potential for leachate to migrate from the landfill and potentially contaminate the local groundwater.

Because the area is seismically active, urban development of the city could expose its residents to moderate to intense groundshaking. While intense groundshaking could cause extensive structural damage, structural damage caused by groundshaking is not related so much to absolute distance from a fault as to the seismic response characteristics of the geologic units under the structures. Bedrock, offers the most favorable building foundation while unconsolidated sediments and fill are less secure. A substantial portion of the eastern area of the Planning Area consists of Rincon Silty Clay Loam, which is noted for its fair to poor stability, medium strength, and high shrink/swell characteristics. Construction on such soils would require appropriate structural design features to compensate for these conditions.

Potential for erosion by wind and rain would be increased during construction of new development. Extensive grading and removal of vegetation required for development would expose large amounts of soil to wind and water. The natural soil, having slow permeability and moderate to rapid runoff, would have a high erosion potential when exposed.

Increased sediment load in runoff water during the rainy season due to increased erosion could result in degradation of down-stream surface water quality.

The Modified DGP would result in a moderately higher population, and a slightly faster rate of growth, but it incorporates the same policies as the Project requiring geotechnical reports and appropriate mitigation measures.

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The Draft General Plan (and the Modified DGP) incorporate a Policy (VII.A.1) in the Health and Safety Element which require the preparation of geotechnical reports, and identification of appropriate mitigation measures, to ensure that, within technical and economic feasibility, new structures can withstand seismic events, soil instability or liquefaction which could potentially occur in Winters. Similar requirements are imposed on underground utilities, with particular emphasis on water and natural gas mains (VII.A.2). In addition, the City will institute a program requiring abatement of structural hazards in unreinforced masonry buildings, while offering loans and/or grants for abatement of selected buildings (Policy VII.A.3).

The exposure of a larger population to the potential hazards of earthquakes in the region, resulting from new development and an expanded population, is a significant impact which is reduced to a less than significant level by the policies of the DGP (and of the Modified DGP) which are intended to ensure that both new development and unsafe existing buildings will meet as high a standard of structural safety as is reasonable or possible.

C. MITIGATION MEASURES

Because of the policies in the Draft General Plan, no mitigation measures are necessary to reduce the risk of geological hazards of existing or proposed new development. However, the following specific measures are examples of how the Policies of the DGP may be implemented on an individual, project-by-project basis.

- Proposed development consistent with the Project should be constructed in accordance with the Uniform Building Code, taking into account the engineering properties of the soils and subsurface materials, and the maximum anticipated seismic event of a 7.0 Richter Scale earthquake on the Midland Fault.
- To minimize the effects of groundshaking on future structures, foundations should be placed on bedrock or strong native or reworked soil. Appropriate engineering procedures should be undertaken during site and foundation preparation and construction to reduce potential damage and injury caused by an earthquake.
- Grading should be carried out during the dry months, when possible. Areas not being graded should be disturbed as little as possible. Construction and grading areas, as well as soil stockpiles, should be covered or temporarily revegetated when left for long periods. Revegetation of slopes should be carried out immediately upon completion of grading.

X. GEOLOGY, SOILS, SEISMICITY AND HYDROLOGY

- Measures defined immediately above should be followed to reduce erosion. Also, temporary drainage structures and sedimentation basins should be installed to prevent sediment from entering and thereby degrading the quality of downstream surface waters, particularly Putah Creek.
- Before any development of the landfill site occurs, the City, in coordination with the developers in the area, must comply with closure requirements of the California Administrative Code, Title 26, Division 22, Chapter 3, Subchapter 15, which is the water quality section of the State Code dealing with landfills. The landfill Closure Plan will have to be approved by the Regional Water Quality Control Board (RWQCB), which has full regulatory authority.

As part of the closure process, the RWQCB may require the landfill to be covered and contoured with a layer of clay soil cover material. The purpose of the cover would be to reduce infiltration of precipitation into the landfill, thereby reducing seepage from the landfill of potentially hazardous leachate which could then contaminate the groundwater. Periodic testing of monitoring wells for groundwater quality will likely be required (Ref. 24).

- As part of the Closure Plan for the old Winters Landfill, specific measures should be outlined that will reduce the potential negative effects of a major seismic event on the landfill, especially if the landfill site is proposed to be developed into a public-use area. These measures should include compacting the fill to increase strength, contouring the cover to decrease the slope and improve drainage, and revegetating the cover with shallow root grasses to reduce erosion.
- Additional investigations should be conducted to determine the vertical and lateral extent of hazardous materials in the landfill and characterize the hydrogeologic environment immediately beneath the landfill. These investigations should identify all potential migratory pathways from the landfill, and determined the vertical and lateral extent of contamination in the subsurface materials. These investigations should also provide information to supplement the Closure Plan. Along with the preliminary SWAT (Ref. 24), these investigations should meet the requirements of the Calderon Bill. As implemented by the City of Winters and approved by the RWQCB, this impact would be reduced to a less than significant level.

XI. NOISE CONSIDERATIONS

A. SETTING

The major noise sources in the City of Winters are vehicular traffic, occasional aircraft overflights, the Mariani Nut Company Plant, and agricultural machinery. Vehicular traffic is, by far, the most significant noise source in the City of Winters.

Government Code Section 65302(f) requires that a General Plan shall include a Noise Element which shall identify and apprise noise problems in the community. The code requires that the noise element shall recognize the guidelines adopted by the Office of Noise Control and the State Department of Health Services and shall analyze and quantify to the extent practicable as determined by the legislative body current and projected noise levels for all of the following sources:

- ◆ Highways and freeways;
- ◆ Primary arterials and major local streets;
- ◆ Passenger and freight on-line railroad operations and ground rapid transit systems;
- ◆ Commercial, general aviation, heliport, helistop, and military airport operations, aircraft overflights, jet engine test stands and all other ground facilities and maintenance functions related to airport operations;
- ◆ Local industrial plants, including but not limited to, railroad classification yards; and
- ◆ Other ground stationary noise sources identified by local agencies as contributing to the community noise environment.

The code also states that noise contours shall be shown for all of these sources and stated in terms of the Community Noise Equivalent Level (CNEL)¹ or day/night average noise level (L_{dn})². The noise contour shall be prepared on the basis of noise monitoring or following generally accepted noise modeling techniques for the various sources defined in the above-referenced Government Code section. The noise contours shall be used as a guide for establishing a pattern of land uses in the Land Use Element to minimize exposure of community residents to excessive noise.

¹ CNEL (Community Noise Equivalent Level) -- The average A-weighted noise level during a 24-hour day, obtained after addition of 5 decibels to levels in the evening from 7:00 PM to 10:00 PM and after addition of 10 decibels to sound levels in the night between 10:00 PM and 7:00 AM.

² L_{dn} (Day/Night Sound Level) -- A descriptor established by the U.S. Environmental Protection Agency (EPA) for the 24-hour average A-weighted noise level. Sound levels during the hours from 10:00 pm to 7:00 am are penalized 10 dB to account for the increased sensitivity of people during the nighttime hours.

The Noise Element shall also include implementation measures and possible solutions that address existing and foreseeable noise problems, if any. The adopted Noise Element shall serve as a guideline for compliance with the State's Noise Insulation Standards.

Existing Noise Environment

The City of Winters' noise environment is mainly dominated by traffic noise. Traffic on Interstate 505 and State Route 128 (Grant Avenue) is the most significant noise source. Noise generated by traffic on Railroad Street and Main Street is less significant. Occasional noise events associated with agricultural activities also contribute, to some extent, to the existing noise environment. Noise due to aircraft overflights is occasionally audible but not significant.

Existing noise levels along the major roadways within the City of Winters have been calculated using the FHWA traffic noise prediction model and traffic data from the Traffic Report for this project (Ref. 47). Noise levels along Interstate 505 currently exceed an L_{dn} of 60 dB within a distance of 900 feet from the center of the road. Noise levels currently exceed an L_{dn} of 60 dB within a distance of approximately 120 feet from the center of State Route 128 (Grant Avenue). Residences adjacent to State Route 128, within the City limits are currently exposed to noise levels above an L_{dn} of 60 dB, the noise and land use compatibility standard. An elementary school and a high school are currently located adjacent to Grant Avenue. Noise levels in portions of the outdoor use areas for these two schools exceed an L_{dn} of 60 dB, the maximum noise level considered clearly acceptable for schools.

The current land uses along Interstate 505 are commercial, retail, and agricultural. With the exception of a school and a few residences, current land uses along Grant Avenue (State Route 128) are mostly commercial and retail. Several residences are currently located along Railroad Street, north of Grant Avenue. The current land use south of Grant Avenue along Railroad Street is retail/commercial. This area constitutes the Winters Central Business District.

Noise monitoring was conducted between January 5 and 7, 1990. Two 24-hour measurements were conducted within the City limits. Noise measurements were conducted with Larson-Davis Laboratories Model 700 integrating sound level meters equipped with Bruel & Kjaer type 4176 pre-polarized condenser microphones. These meters, when equipped with this type of microphone, meet the electrical frequency response criteria for American National Standards Institute Standard S1.4-1971 for Type 1 (precision) sound level meters. The sound level meters were calibrated before and after each measurement. Measurement locations are shown in **Figure 41**. The meter at Location 1 was placed on a pole at a distance of 50 feet from the centerline of Walnut Lane. During the three days of monitoring, the L_{dn} ranged between 55 and 56 dB. The results of this measurement are shown in **Figure 42**. The second measurement (Location 2) was conducted at a distance of 27 feet from the centerline of Niemann Street. The results of this measurement are shown in **Figure 43**. During the three days of monitoring, the L_{dn} at this location ranged between 59 and 60 dB.

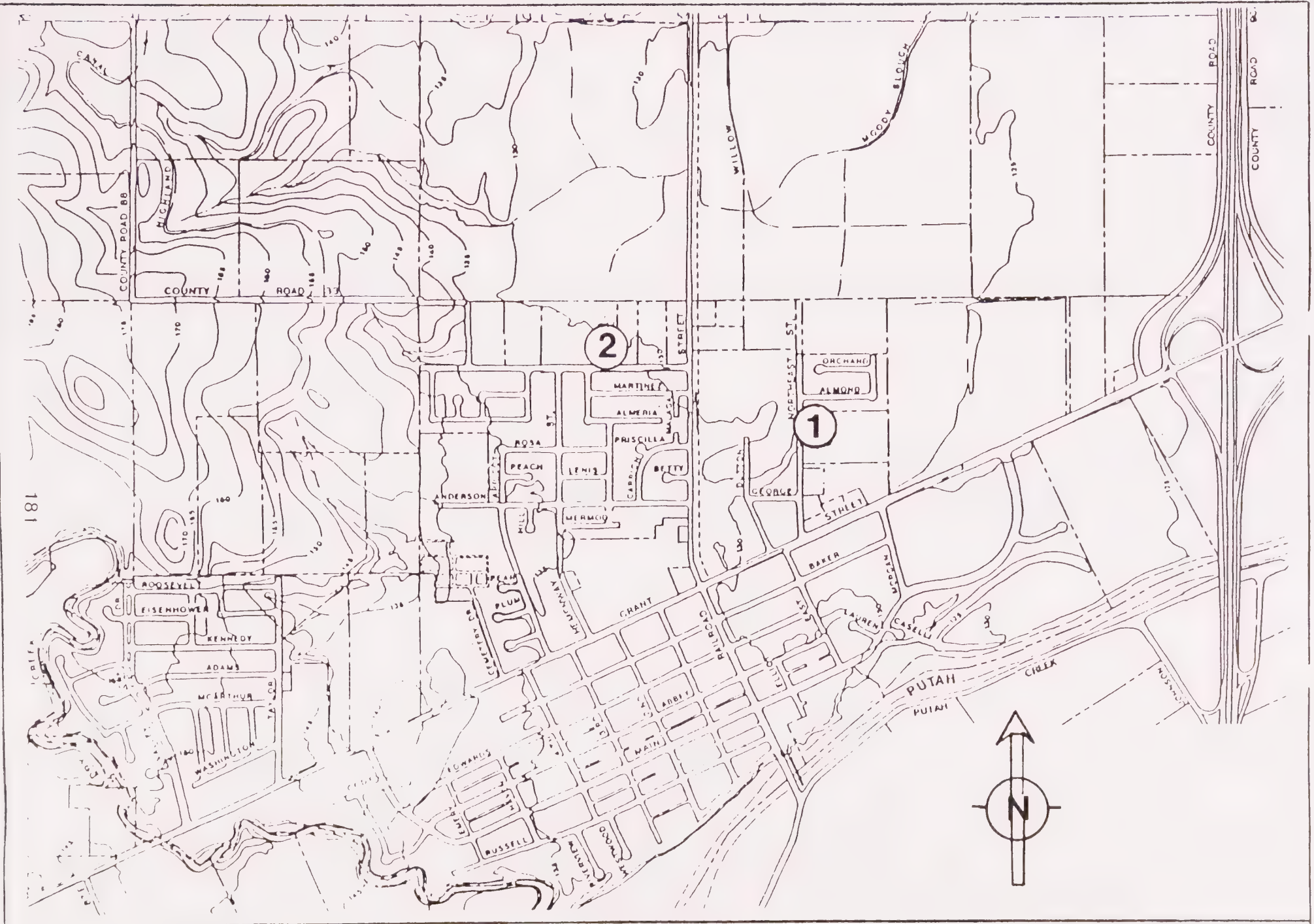


Figure 42

HOURLY NOISE MEASUREMENTS
LOCATION 1: 50 FEET TO WALNUT LANE CENTERLINE
 Draft General Plan EIR
 City of Winters, California

Date	Day	Hour Starting	L _{eq}
January 5, 1990	Friday	3:00 PM	60
		4:00 PM	56
		5:00 PM	56
		6:00 PM	54
		7:00 PM	53
		8:00 PM	51
		9:00 PM	51
		10:00 PM	52
		11:00 PM	50
January 6, 1990	Saturday	Midnight	46
		1:00 AM	46
		2:00 AM	46
		3:00 AM	44
		4:00 AM	46
		5:00 AM	46
		6:00 AM	48
		7:00 AM	54
		8:00 AM	53
		9:00 AM	52
		10:00 AM	52
		11:00 AM	54
		12:00 PM	57
		1:00 PM	52
		2:00 PM	50
Overall 24-Hr. Average: L _{dn} = 56 dB			
January 6, 1990	Saturday	3:00 PM	50
		4:00 PM	53
		5:00 PM	52
		6:00 PM	54
		7:00 PM	52
		8:00 PM	50
		9:00 PM	50
		10:00 PM	48
		11:00 PM	48
January 7, 1990	Sunday	Midnight	50
		1:00 AM	50
		2:00 AM	44
		3:00 AM	44
		4:00 AM	46
		5:00 AM	45
		6:00 AM	48
		7:00 AM	45
		8:00 AM	51
9:00 AM	52		

FIGURE 42, Continued

Date	Day	Hour Starting	L _{eq}
January 7, 1990	Sunday	10:00 AM	54
		11:00 AM	52
		12:00 PM	53
		1:00 PM	54
		2:00 PM	54

Overall 24-Hr. Average: L_{dn} = 55 dB

January 7, 1990	Sunday	3:00 PM	54
		4:00 PM	53
		5:00 PM	52
		6:00 PM	52
		7:00 PM	50
		8:00 PM	50
		9:00 PM	50
		10:00 PM	46
		11:00 PM	46
January 8, 1990	Monday	Midnight	40
		1:00 AM	40
		2:00 AM	45
		3:00 AM	44
		4:00 AM	45
		5:00 AM	46
		6:00 AM	52
		7:00 AM	55
		8:00 AM	60
		9:00 AM	54
		10:00 AM	54
		11:00 AM	61
		12:00 PM	52
		1:00 PM	56
		2:00 PM	55

Overall 24-Hr. Average: L_{dn} = 56 dB

Figure 43

HOURLY NOISE MEASUREMENTS
LOCATION 2: 27 FEET TO NIEMANN STREET CENTERLINE
 Draft General Plan EIR
 City of Winters, California

Date	Day	Hour Starting	L _{eq}
January 5, 1990	Friday	3:00 PM	62
		4:00 PM	62
		5:00 PM	60
		6:00 PM	58
		7:00 PM	54
		8:00 PM	54
		9:00 PM	57
		10:00 PM	52
		11:00 PM	52
January 6, 1990	Saturday	Midnight	54
		1:00 AM	46
		2:00 AM	42
		3:00 AM	47
		4:00 AM	36
		5:00 AM	50
		6:00 AM	48
		7:00 AM	55
		8:00 AM	56
		9:00 AM	60
		10:00 AM	60
		11:00 AM	59
		12:00 PM	62
		1:00 PM	60
		2:00 PM	58
Overall 24-Hr. Average: L _{dn} = 59 dB			
January 6, 1990	Saturday	3:00 PM	58
		4:00 PM	58
		5:00 PM	58
		6:00 PM	56
		7:00 PM	55
		8:00 PM	50
		9:00 PM	54
		10:00 PM	53
		11:00 PM	53
January 7, 1990	Sunday	Midnight	46
		1:00 AM	50
		2:00 AM	44
		3:00 AM	46
		4:00 AM	44
		5:00 AM	47
		6:00 AM	50
		7:00 AM	54
		8:00 AM	56
9:00 AM	59		

FIGURE 43, Continued

Date	Day	Hour Starting	Leq
January 7, 1990	Sunday	10:00 AM	58
		11:00 AM	58
		12:00 PM	58
		1:00 PM	60
		2:00 PM	60

Overall 24-Hr. Average: $L_{dn} = 60$ dB

January 7, 1990	Sunday	3:00 PM	58
		4:00 PM	62
		5:00 PM	58
		6:00 PM	56
		7:00 PM	56
		8:00 PM	58
		9:00 PM	53
		10:00 PM	52
		11:00 PM	48
January 8, 1990	Monday	Midnight	42
		1:00 AM	45
		2:00 AM	46
		3:00 AM	45
		4:00 AM	48
		5:00 AM	54
		6:00 AM	54
		7:00 AM	58
		8:00 AM	62
		9:00 AM	64
		10:00 AM	62
		11:00 AM	62
		12:00 PM	61
		1:00 PM	58
		2:00 PM	60

Overall 24-Hr. Average: $L_{dn} = 60$ dB

XI. NOISE CONSIDERATIONS

The noise levels recorded during the monitoring survey are representative of the existing noise environment in the northern portion of the City of Winters. The area in the north of the city is currently exposed to lower noise levels, indicative of the quiet rural character of the area.

B. IMPACTS

The Health and Safety Section of the Draft General Plan (Policy Document) incorporates goals and policies regarding noise. The Draft General Plan goal is to "protect City residents from harmful and undesirable effects of excessive noise" (Goal VII.E). The noise and land use compatibility standards incorporated into the DGP (Policy VII.E.1) are reproduced in **Figure 44**, and the exterior and interior noise standards are shown in **Figure 45**. Residential land uses are considered "Normally Acceptable" in areas exposed to noise levels below an L_{dn} of 60 dB. Public buildings are a "Clearly Acceptable" land use in areas exposed to an L_{dn} of less than 60 dB. Noise levels inside new residences (single- and multi-family) must be maintained below an L_{dn} of 45 dB. Noise studies are required for all new residential projects proposed in areas exposed to noise levels above an L_{dn} of 60 dB.

The noise policies and standards shown in **Figures 44** and **45** are used as the basis for identifying adverse noise impacts resulting from development as defined by the land use designations and circulation system of the Draft General Plan. These policies are also used for evaluating the potential impacts of Alternative II, the Modified DGP, as well as the other Alternatives addressed in Chapter XV of the EIR. Potential noise impacts are addressed under the following headings:

- ◆ Exposure of new development to excessive noise levels.
- ◆ Implementation of the Draft General Plan and increased noise levels in the City.

The determination of whether new development would be exposed to excessive noise levels is made by comparing the land use plan with the anticipated projected noise levels along this adjacent streets. The criteria for compatibility are based on the guidelines proposed in the Draft General Plan and reproduced as **Figure 44**.

The impact of additional traffic generated from implementation of the Project or Alternative II on existing noise levels in the City of Winters is assessed by comparing projected traffic noise levels with existing noise levels. The Draft General Plan does not contain a quantitative standard for defining a significant increase in noise. Cities and Counties throughout California have adopted varying approaches to evaluating this impact. Typically, an increase of 3-5 dB is considered potentially significant depending upon a number of factors, including existing noise levels and the types of land use affected. In this report, any 3 dB increase is considered to be potentially significant.

Figure 44
LAND USE NOISE COMPATIBILITY STANDARDS
Draft General Plan EIR
City of Winters, California

Land Use Category	60 or Less	Exterior Ldn (dBA)		
		60-65	65-70	70-75
<u>Residential</u>	+	o	-	-
Single and multiple family dwellings, including mobile homes, duplexes, apartments, condominiums, hotels, and motels				
<u>Outdoor Public Facilities</u>	+	o	-	-
Neighborhood parks, playgrounds (including school playgrounds), picnic areas, amphitheaters, golf courses, riding stables and trails, water recreation, cemeteries				
<u>Public Buildings</u>	++	+	o	-
School buildings, libraries, churches, hospitals, nursing homes, auditoriums, concert halls, sports arenas				
<u>Commercial</u>	++	+	o	-
Office buildings, retail, business and professional facilities				
<u>Industrial</u>	++	++	+	o
Manufacturing, utilities, and agriculture facilities				

• • •

Footnotes

- + + Clearly Acceptable - The activities associated with the specified uses can be carried out with virtually no interference from noise.
- + Normally Acceptable - Little interference with outdoor activities is expected. Conventional structures will insure that interior Ldn values are compatible with indoor activities.
- o Conditionally Acceptable - The indicated noise levels will cause moderate interference with outdoor activities, and with indoor activities when windows are open. New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made. Noise reduction features should be included in the project design which upgrade the environment to the "Normally Acceptable" category over a substantial portion of the project site.
- Normally Unacceptable - Noise will create substantial interference with both outdoor and indoor activities. Noise intrusion on indoor activities can be mitigated with special noise insulating construction. New construction or development should be generally discouraged. If construction or development does proceed, noise mitigation measures should be required to upgrade the acoustic environment to approach the "Normally Acceptable" category with respect to exterior noise, and to insure that interior noise levels comply with the state noise insulation standards.
- Clearly Unacceptable - Unacceptable noise intrusion upon land use activities will occur. Adequate structural noise insulation may not be practical in many cases, or may involve high noise barriers visually incompatible with a suburban area. New construction or development should generally not be undertaken.

Figure 45
EXTERIOR AND INTERIOR NOISE LEVEL LIMITS
 Draft General Plan EIR
 City of Winters, California

EXTERIOR NOISE LEVEL LIMITS

Use Zone	Exterior Limit in dBA	
	Daytime 7 a.m. - 10 p.m.	Nighttime 10 p.m. - 7 a.m.
Rural (OS)	50	40
Residential (R-1, R-2, R-3, R-4)	50	45
Parks & Recreation (P-R)	50	45
Commercial (C-1, C-2, NC, CH, CS)	63	45
Manufacturing/Industrial (M-1, M-2, PI)	73	70

These limits on intrusive noise are to be applied at any point within the boundaries of a property zoned as indicated.

Each limit is the noise level which is not to be exceeded continuously during any five minute period. If the noise level varies above and below the limit, the limit shall not be exceeded during more than one time interval in any five minute period. Noise levels higher than the applicable limit plus 15 dBA are prohibited at all times.

INTERIOR NOISE LEVEL LIMITS

Use Zone	Interior Limit in dBA	
	Daytime 7 a.m. - 10 p.m.	Nighttime 10 p.m. - 7 a.m.
Residential (R-1, R-2, R-3, R-4)	45	35

These levels of intrusive noise are not to be exceeded at any point within a dwelling.

Each limit is the noise level which is not to be exceeded continuously during any five minute period. If the noise level varies above and below the limit, the limit shall not be exceeded during more than one time interval in any five minute period. Noise levels higher than the applicable limit plus 15 dBA are prohibited at all times.

XI. NOISE CONSIDERATIONS

Exposure of New Development to Excessive Noise Levels

The city's industrial noise sources are not significant, but could present problems locally for future development. Their noise level output should be evaluated against the performance standards incorporated into the Draft General Plan and shown in **Figure 45**.

Figure 46 shows existing and projected noise levels at a distance of 50 feet from the center of selected roadways proposed. Proposed residential development along State Route 128 (Grant Avenue), Interstate 505, Railroad Street, and Main Street could be potentially impacted by noise. Noise levels within 1,200 feet of Interstate 505 would exceed an L_{dn} of 60 dB. Noise levels along portions of Grant Avenue would exceed of an L_{dn} of 60 dB within 200 feet from the road. Noise levels would exceed an L_{dn} of 60 dB within 80 feet from Railroad Street. Noise levels along the portion of Main Street Loop, east of Railroad Street, and between County Road 33 and Grand Avenue, would also exceed an L_{dn} of 60 dB within a distance of 90 feet from the road. Residential development within these distances would require mitigation to achieve the City's goal for indoor and outdoor noise exposure. The Draft General Plan Background Report, issued on October 21, 1991, includes a noise contour map of the city's major highway, roadway and industrial noise sources, but its consistency with the above projections of noise levels and distances from specified noise sources has not been determined.

The noise policies of the DGP incorporate state standards for residential development, compliance with interior and exterior noise standards, requirements for noise studies, guidelines for granting variances, and guidelines for the design and location of sensitive areas within dwelling units, and of sensitive land uses (e.g., parks, care facilities, etc.) within individual development projects (VII.E.2-11). Exterior noise is to be minimized through designs which locate outdoor activity spaces in the least affected areas such as in rear yards, patios and decks, or by berms, walls and setbacks (VII.E.10.a,d).

The overall emphasis of the policies is on insulation and configuration of residential uses to avoid excessive noise and incompatibility. They do not reconfigure the designation of land uses within areas of high noise levels to isolate residential land uses from high-traffic roadways. The means of avoiding significant noise impacts are requirements for noise studies, extensive sound-proofing insulation, noise barriers and setbacks. The practicality and cost-effectiveness of these measures is not demonstrated.

11.1 New development, particularly residential uses adjacent to principal streets, would be exposed to excessive noise levels, and would be significantly impacted.

Figure 46

**COMPARISONS BETWEEN EXISTING AND PROJECTED NOISE LEVELS:
ALTERNATIVES I AND II**
Draft General Plan EIR
City of Winters, California

<u>Street</u>	<u>Existing L_{dn} at 50 Ft. From Centerline</u>	<u>DGP vs. Existing</u>	<u>MDGP vs. DGP</u>
INTERSTATE 505			
Fr: North End			
To: Grant Ave.	79	-1	0
To: South End	79	-1	0
SR 128 (GRANT AVE.)			
Fr: East of I-505			
To: I-505	NA	NA	0
To: Morgan St.	66	5	0
To: Walnut Ln.	66	+3	0
To: Railroad St.	65	+3	0
To: Hemenway	64	+4	0
To: Main St.	65	+4	0
To: Valley Oak Dr.	64	+1	0
RAILROAD ST.			
Fr: North End			
To: County Rd. 32A	NA	NA	0
To: County Rd. 33	NA	NA	0
To: Niemann St.	NA	NA	0
To: Anderson Ave.	60	+3	+1
To: Grant Ave.	60	+1	+1
To: Main St.	62	0	+1
To: Putah Creek Rd.	61	2	0
MAIN ST.			
Fr: Morgan St.			
To: Railroad St.	57	+2	0
To: Grant Ave.	57	+1	0
To: Anderson Ave.	NA	NA	+1
To: County Rd. 33	NA	NA	+1
To: Railroad St.	NA	NA	+2
To: County Rd. 33	NA	NA	+1
To: Grant Ave.	NA	NA	+1
To: Morgan St.	NA	NA	0
COUNTY RD. 33			
Fr: Industrial Rd.			
To: Main St.	NA	NA	+1
To: Railroad St.	NA	NA	+1
To: Hemenway St.	NA	NA	+1
To: Main St.	NA	NA	+2
To: Valley Oak Dr.	NA	NA	0
NIEMANN ST.			
Fr: Railroad St.			
To: Hemenway St.	57	+3	+1
To: Main St.	NA	NA	+1
WALNUT LN.			
Fr: County Rd. 33			
To: Grant Ave.	56	+3	0
PUTAH CREEK RD.			
Fr: East of I-505			
To: I-505	NA	NA	0
To: Railroad St.	NA	NA	0
ANDERSON AVE.			
Fr: Railroad St.			
To: Hemenway St.	NA	NA	+1
To: Main St.	NA	NA	+1

Existing = Noise levels based on noise monitoring or traffic data (June 1990)

DGP = Draft General Plan, Alternative I (the "Project")

MDGP = Modified Draft General Plan, Alternative II

Exposure of Existing Development to Increased Noise Levels

Implementation of either the Draft General Plan (Alternative I) or of the Modified DGP (Alternative II) would expose existing residents to higher noise levels due to increased traffic. As shown in **Figure 46** noise levels along portions of Railroad Street, Niemann Street, and Walnut Lane would increase by 3 dB or more.

Noise levels along Grant Avenue (SR-128) would increase by up to 5 dB. These increases would be considered potentially significant. Both the Project and Alternative II would result in the construction of new roads. New roads would include the extension of County Road 33 east of Hemenway Street and construction of the Main Street Loop around the perimeter of the City.

11.2 Existing residences near new and existing roadway segments would experience substantial increases in noise levels. This would constitute a significant impact.

C. MITIGATION MEASURES

Under any of the Alternatives evaluated in this EIR, including the Modified DGP and those considered in Chapter XV, Alternatives to the Project, future noise levels along many existing streets in the City of Winters would be significantly higher than existing. Alternative I (Draft General Plan) would have the least potential to generate significant noise impacts. Noise impacts associated with the other alternatives would vary widely. Development in the vicinity of major roadways (Interstate 505, Grant Avenue, Main Street Loop, and Railroad Street) is currently exposed and will continue to be exposed to noise considered to be excessive according to the City's proposed General Plan.

New development should comply with the noise and land use compatibility guidelines contained in the Health and Safety Element of the adopted General Plan. The City should use its noise and land use compatibility table as a planning tool to minimize potential noise impacts associated with future development. Future development with the potential to generate significant noise impacts should be evaluated through the use of specific noise studies, and mitigation measures should be incorporated that reduce noise impacts on existing nearby residents, as directed by the Draft General Plan policies. Noise reduction measures for new residential development should be incorporated in the design stage to achieve compliance with the City's standards. The following mitigation measures assume no change in the Land Use Diagram, such as would locate residential areas adjacent to, or within the noise contours of I-505.

New Development

- 11.1A** New residential development shall not be located adjacent to Grant Avenue (State Route 128).
- 11.1B** Acoustical assessments shall be prepared for new residential projects proposed in noise impacted areas. The noise contour map shall be used to identify potentially noise impacted areas.
- 11.1C** Sound walls shall be required for the protection of new noise sensitive receptors, where noise levels can not be mitigated through open space and buffer zones.

The above mitigation measures would reduce the impacts of Alternatives I and II to a less than significant level.

Existing Noise Sensitive Areas

- 11.2A** New development within the City shall be planned so as to minimize noise impacts on existing noise sensitive areas.
- 11.2B** Mitigation measures shall be required for projects that could cause the L_{dn} in existing residential areas to increase by 3 dB or more.
- 11.2C** The City shall adopt a quantitative noise ordinance to alleviate existing community noise problems.

The above mitigation measures would reduce the impacts of Alternatives I and II to a less than significant level.

XII. AIR QUALITY

A. SETTING

Air Pollution Climatology

Winters is within the Sacramento Valley air basin, characterized by a semi-arid temperate climate. Winds blowing from the southwest through the Carquinez Straits provide a major source of ventilation for the Sacramento and San Joaquin Valleys, especially during the summer months.

Despite the excellent atmospheric ventilation of the area, the project site does have a moderate potential for air pollution. The warm summer temperatures and abundant sunshine typical of the area result in a high potential for ozone formation whenever winds are diminished. Although lightly developed, this area is exposed to pollutants transported into the Valley from the Bay Area.

Air Pollutants and Standards The Mulford-Carrell Act of 1969 and the Clean Air Act of 1967 established state and federal air quality standards for several pollutants. These standards are designed to protect the public health and to protect the public welfare from effects such as visibility reduction, soiling, nuisance and other forms of damage. The State and federal ambient air quality standards are shown in **Figure 47**.

The air pollutants covered in the above-described legislation are known as "criteria" pollutants, in that their effects are documented in criteria documents which form the basis for federal and state ambient air quality standards. These pollutants and their effects are described below.

Suspended Particulate Matter

Suspended particulate matter consists of solid and liquid particles of dust, soot, aerosols and other matter which are small enough to remain suspended in the air for a long period of time. A portion of the suspended particulate matter in the air is due to natural sources such as wind blown dust and pollen. Man-made sources include combustion, automobiles, field burning, factories and unpaved roads.

The effects of high concentrations on humans include aggravation of chronic disease and heart/lung disease symptoms. Non-health effects include reduced visibility and soiling of surfaces.

Carbon Monoxide

Carbon monoxide is an odorless, colorless gas that is highly toxic. It is formed by the incomplete combustion of fuels, and its main source in Solano County is automobiles.

Figure 47

AMBIENT AIR QUALITY STANDARDS

Draft General Plan EIR
City of Winters, California

<u>Pollutant</u>	<u>Averaging Time</u>	<u>Federal Primary Standard</u>	<u>State Standard</u>
Ozone	1-Hour	0.12 PPM	0.09 PPM
Carbon Monoxide	8-Hour	9.0 PPM	9.0 PPM
	1-Hour	35.0 PPM	20.0 PPM
Nitrogen Dioxide	Annual	0.05 PPM	- - -
	1-Hour	---	0.25 PPM
Sulfur Dioxide	Annual	0.03 PPM	- - -
	24-Hour	0.14 PPM	0.25 PPM
	1-Hour	---	0.5 PPM
PM-10	Annual	50 ug/m ³	30 ug/m ³
	24-Hour	150 ug/m ³	50 ug/m ³
Lead	30-Day Ave.	---	1.5 ug/m ³
	3-Month Ave.	1.5 ug/m ³	---

PPM = Parts Per Million

ug/m³ = Micrograms Per Cubic Meter

The health effects of carbon monoxide are related to its affinity for hemoglobin in the blood. At high concentrations, carbon monoxide reduces the amount of oxygen in the blood, causing heart difficulties in people with chronic diseases, reduced lung capacity and impaired mental abilities.

Ozone

Ozone is the most prevalent of a class of photochemical oxidants formed in the urban atmosphere. The creation of ozone is a result of a complex chemical reactions between hydrocarbons and oxides of nitrogen in the presence of sunshine. Unlike other pollutants, ozone is not released directly into the atmosphere from any sources. The major sources of oxides of nitrogen and hydrocarbons, known as ozone precursors, are combustion sources such as factories and automobiles, and evaporation of solvents and fuels.

The health effects of ozone are eye irritation and damage to lung tissues. Ozone also damages some materials such as rubber, and may damage plants and crops.

Nitrogen Dioxide

Nitrogen dioxide is a reddish-brown toxic gas. It is one of the oxides of nitrogen that result from combustion. It is the only oxide of nitrogen which is toxic; however, other oxides of nitrogen, particularly nitric oxide, are converted to nitrogen dioxide in the presence of sunshine. Major sources of oxides of nitrogen are automobiles and industry.

Sulfur Dioxide

Sulfur dioxide is a colorless gas with a pungent, irritating odor. It is created by the combustion of sulfur-containing fuels. This substance is known to oxidize to sulfur trioxide, which combines with moisture in the atmosphere to form a sulfuric acid mist.

Sulfur dioxide damages and irritates lung tissue, and accelerates corrosion of materials.

Lead

Atmospheric lead occurs in the form of airborne lead particles. The dominant source of lead in urban atmospheres is lead compounds contained in gasoline.

Lead accumulates in the body tissues, where it impairs blood function and nerve construction.

Past and Current Air Quality

Winters is located in the Yolo-Solano Air Pollution Control District (YSAPCD). The District operates air quality monitoring at several locations in the county. The closest permanent multi-pollutant monitoring site is located in Woodland, about 15 mile northeast of Winters. The YSAPCD also monitors ozone at Vacaville located about 12 miles southwest of Winters. The California Air Resources Board maintains a special monitoring site for ozone in Davis, located about 12 miles east of Winters. Occurrences of concentrations exceeding the ozone and particulate standards are shown in **Figure 48**.

Air Quality Planning

Federal Programs

The federal Clean Air Act, as amended, requires the state to identify areas not meeting the federal primary standards (non-attainment areas).

The Yolo-Solano Air Pollution Control District is designated as "unclassified" with respect to the federal standards for sulfur dioxide and nitrogen dioxide. The District is also considered as having attained the federal primary standard for suspended particulates.

Figure 48

SUMMARY OF AIR QUALITY DATA

Draft General Plan EIR
City of Winters, California

<u>Site</u>	<u>Number of Days Exceeding Standard in:</u>			
	<u>1986</u>	<u>1987</u>	<u>1988</u>	<u>1989</u>
OZONE (STATE STANDARD = 0.09 PPM)				
Woodland	7	17	22	1
Vacaville	0	12	2	4
Davis	4	*	15	1
OZONE (FEDERAL STANDARD = 0.12 PPM)				
Woodland	0	1	0	0
Vacaville	0	0	0	0
Davis	0	*	0	0
SUSPENDED PARTICULATE (STATE 24-HOUR STANDARD = 50 ug/m3) ¹				
Woodland	7	8	19	8
Vacaville	*	*	4	5

* Not measured or data incomplete.

¹ Source: Reference 5

Measurements made within the District show attainment of the federal ozone and carbon monoxide standards but the District is technically a non-attainment area for these pollutants because of its inclusion within the Sacramento Area Air Quality Maintenance Area.

The federal Clean Air Act Amendments of 1990 require that non-attainment areas develop plans and strategies that will reduce pollutants by 15 percent during the first 6 years, then 3 percent annually thereafter until the standards are met.

The 1977 amendments to the federal Clean Air Act require that the Sacramento Area Council of Governments, as the designated metropolitan planning organization, not approve any transportation projects unless they are shown to be in conformance to the locally- adopted portion of the State Implementation Plan.

State Programs

The California Clean Air Act requires local air pollution control districts (in Yolo County this is the Yolo-Solano Air Pollution Control District) to prepare air quality attainment plans for ozone.

Generally, these plans must provide for district-wide emission reductions of five percent per year averaged over consecutive three-year periods. The Act also grants air districts explicit statutory authority to adopt indirect source regulations and transportation control measures, including measures to encourage or require the use of ridesharing, vanpooling, flexible work hours or other measures which reduce the number or length of vehicle trips.

The California Clean Air Act requires that local air pollution control districts implement Transportation Control Measures (TCMs) to reduce air pollutant emissions. Specific transportation performance standards are part of the California Clean Air Act requirements, including:

- ◆ A substantial reduction in the rate of increase in passenger vehicle trips and vehicle miles travelled;
- ◆ Achieve a 1.5-person vehicle occupancy rate during the peak travel periods by 1999; and
- ◆ Provide for no net increase in vehicle emissions beyond the year 1997.

Under the State Clean Air Act, the Yolo-Solano Air Pollution Control District is considered attainment for all pollutants except ozone and suspended particulate matter.

B. IMPACTS

Methodology

The primary source of pollutants related to the proposed project would be from new automobile traffic. Air quality impacts related to automobiles have been analyzed on both the local and regional scale.

Local Scale

Local-scale impacts are those that occur within a short distance of the source of pollutants. Because local-scale impacts are greatest during times of calm and stable conditions, these impacts tend to occur in the winter months.

For automobiles, the major local-scale impacts are an increase in concentrations of carbon monoxide near heavily-travelled roadways. For area sources such as residences, the local-scale impacts are due to fireplace or woodstove emissions that occur during winter nights.

Computer models have been developed that allow the prediction of concentrations of carbon monoxide concentrations near roadways in future years. One such model, the CALINE-4 program developed by the California Department of Transportation, was applied to intersections within the Winters area for current traffic volumes and projected traffic volumes for the year 2010.

Given traffic volume, meteorology, site geometry and site characteristics, the model predicts pollutant concentrations for receptors located near the roadway. The intersection mode of the model was employed, which distributes emissions along each leg of the intersection for free-flow traffic, idling traffic and accelerating and decelerating traffic. The intersection model extended 500 meters in all directions. Receptors (locations where the model calculates concentrations) were located at a distance of 10 feet from the roadway edge for all four corners of the intersection.

Concentrations of carbon monoxide were calculated at three intersections: These intersections were selected as having the highest potential for carbon monoxide based upon the volume of traffic and congestion conditions, and concentrations at these location should represent the highest to be expected within the Winters area.

Regional Scale

Future development in Winters would result in new automobile emissions that would affect a large area. Emissions associated with new development would add to the emission burden of the region, potentially affecting air quality as far away as Sacramento.

Trips within, to and from new development in Winters would result in air pollutant emissions over the entire air basin. To estimate the emissions associated with the Project, the URBEMIS-3 computer program, developed by the California Air Resources Board, was applied to the Project.

Project Impacts

Air Quality Effects of Construction

The accommodation of population growth and development within the proposed General Plan would have the potential for short term construction impacts as the area develops. The construction of roads, houses, public amenities and other features would each bring about a period of construction activity and associated air quality impacts.

Construction air quality impacts would be due to dust generated by equipment and vehicles. Fugitive dust is emitted both during construction activity and as a result of wind erosion over exposed earth surfaces. Clearing and earthmoving activities comprise the major source of construction dust emissions, but traffic and general disturbance of the soil also generate significant dust emissions.

The effects of construction activities would be increased dustfall and locally elevated levels of particulate matter. Dustfall would be a nuisance where existing development is located downwind from construction sites, where it would soil exposed surfaces, requiring more frequent washing during the construction period.

Asphalt paving materials used during construction would be a minor source of hydrocarbons, a precursor of ozone.

The nature and extent of construction impacts would be similar for development under the Modified DGP Alternative, but the total number of people adversely affected could be greater due to the higher population that would be accommodated.

Construction-related air quality impacts of the Draft General Plan or of the Modified DGP are considered to be potentially significant, although in general they are temporary in nature and limited in extent at any given time.

The Draft General Plan includes a very general policy that construction-related air quality impacts are to be minimized (VI.E.6), and a program to ensure that adequate measures are employed for that purpose (Program VI.9), but these are not specified.

12.1 The Draft General Plan and the Modified DGP provide general policies which would reduce the effect of construction activity, but without specific measures, the impact on local air quality in the short term could be significant.

Agricultural/Residential Air Quality Conflicts

Expansion of urban areas into surrounding agricultural lands in accordance with the proposed Draft General plan would increase the potential for local air quality problems and nuisance. Where existing agricultural practices continue in proximity to previously-developed urban land uses, the potential for land conflicts between existing agricultural uses and new residential would exist. Such conflicts have been increasingly reported from recently urbanized areas within the Sacramento and San Joaquin valleys.

Tilling, waste burning and pesticide application are typical agricultural activities that can elicit complaints from nearby residences. The future residents of Winters are likely to be immigrants from other urban areas who would be less tolerant than current residents of the dust, odors, and other emissions resulting from normal agricultural practices. An increase in complaints to the Yolo-Solano Air Pollution Control District could be expected with development under the proposed Draft General Plan.

The potential for residential/agricultural air quality conflicts would be slightly higher for development under the Modified DGP because of the higher population total compared to the proposed Draft General Plan.

Residential/agricultural air quality conflicts are considered to be potentially significant, although in general they are temporary in nature and limited in extent at any given time. The Draft General Plan and Modified DGP Goals and Policies address residential/agricultural air quality conflicts indirectly in Goal VI.B and in associated policies that deal with continued productivity of agricultural land and prevention of premature conversion of agricultural land to urban uses (VI.B.1,2). More specifically, along the western and northern boundaries of the Urban Limit Line, buffers are required to be incorporated into residential land use development projects which would minimize potential conflicts and nuisances (VI.B.3). These are the two critical borders between areas designated for residential uses and continued agricultural productivity. However, specific guidelines for the width and potential uses of, or responsibility for, the buffer areas has not been defined.

12.2 The Draft General Plan and the Modified DGP provide buffers which could potentially avoid conflicts between residential and agricultural uses relating to air quality considerations, but which require further definition, and could also fail to prevent significant impacts.

Carbon Monoxide Concentrations

Figure 49 shows the results of the intersection analyses for the peak hour traffic period and the 8-hour peak traffic period. These values are to be compared to the federal 1-hour standard of 35 PPM and the state standard of 20 PPM, and the 8-hour standard (federal and state) of 9.0 PPM.

Concentrations shown in **Figure 49** for existing conditions are all well below the most stringent state and federal standards. By the year 2010 with development as proposed in the Draft General Plan, concentrations would actually be lower than current levels, despite increased traffic volumes, because of the improved emission controls on vehicles. No violations of the ambient air quality standards are indicated.

Figure 49

**PREDICTED WORST CASE 1-HOUR & 8-HOUR CARBON
MONOXIDE CONCENTRATIONS**

Draft General Plan EIR
City of Winters, California

<u>Intersection</u>	<u>Existing</u>	<u>Alt. I</u>	<u>Alt. II</u>
<u>1-Hour Concentrations (PPM)</u>			
SR 128 at Main Street West	6.7	6.1	6.1
SR 128 at Railroad	8.4	7.1	7.3
SR 128 at Main Street East	---	6.6	5.6
<u>8-Hour Concentrations (PPM)</u>			
SR 128 at Main Street West	4.7	4.2	4.3
SR 128 at Railroad	5.9	5.0	5.1
SR 128 at Main Street East	---	4.6	5.6

Figure 49 shows predicted carbon monoxide concentrations for the Modified Draft General Plan. Concentrations under this alternative would be slightly higher than for the proposed Project, but conclusions regarding the significance of these impacts would be the same.

The results in **Figure 49** for the proposed Draft General Plan and the Modified DGP assume construction of needed circulation improvements as identified in the Circulation Element. Higher concentrations, perhaps exceeding the ambient standards, could potentially occur were growth allowed to occur without provision for construction of these improvements. Under this type of scenario, the impact on local carbon monoxide concentrations would be considered potentially significant.

The proposed Draft General Plan contains several goals and associated policies that would, if implemented, mitigate the potential for creation of carbon monoxide problems. Policies address the need to ensure construction of needed transportation improvements as population increases (I.A, III. A), the promotion of non-auto travel to reduce traffic volumes (I.B, III.G) and the need to consider air quality impacts in making transportation decisions (III.D). The consistent implementation of these goals and related policies would lessen potential carbon monoxide impacts to a level that is less-than-significant.

The Draft General Plan and Modified DGP policies would avoid a significant impact on local carbon monoxide concentrations.

Regional Air Pollutant Emissions

The daily increase in regional emissions from auto travel accommodated under the proposed Draft General Plan and the Modified DGP are shown in **Figure 50** for hydrocarbons and oxides of nitrogen (the two precursors of ozone), sulfur dioxide and PM-10. District-wide daily emissions from the latest available emission inventory forecasts are also shown.

The regional increase in emissions shown in **Figure 50** would cause a deterioration in regional air quality. The most important of these emissions would be that of reactive hydrocarbons. Strategies for control of ozone levels in the Sacramento area have focussed on reducing reactive hydrocarbon emissions. The growth accommodated by the proposed Draft General Plan would be responsible for about 1 percent of the projected year 2010 district-wide emissions of ozone precursors. This impact is considered significant.

Under the California Clean Air Act the Yolo-Solano Air Pollution Control District is required to develop a control plan whose implementation would reduce emissions by 5 percent per year from 1987 levels. Projected growth in Winters under the proposed General Plan would add to the amount of reductions required each year, making attainment of the state standards more difficult. More stringent controls on stationary and mobile sources will be necessary on a district-wide basis to offset Project emissions.

The regional emissions associated with development under the Modified Draft General Plan are also shown in **Figure 50**. The emissions associated with this alternative are higher than for the proposed Draft General Plan, reflecting the higher population totals. Conclusions regarding the significance of this impact would be the same as for the proposed Draft General Plan.

Improving air quality in the region and Winters is identified as Goal VI.E in the Natural Resources Element of the proposed General Plan. Policies that would reduce the air quality impacts of development include:

- ◆ *Utilizing the CEQA process to identify and avoid or mitigate potentially significant air quality impacts of new development (VI.E.2);*
- ◆ *Promoting expansion of employment opportunities within Winters to reduce long-distance commuting (VI.E.7); and*
- ◆ *Actively promoting ridesharing (VI.E.8).*

Figure 50

ALTERNATIVE I, II AND DISTRICT-WIDE EMISSIONS: YEAR 2010

Draft General Plan EIR
City of Winters, California

	<u>RHC</u>	<u>NOX</u>	<u>SO2</u>	<u>PM-10</u>
Proposed Draft General Plan (Population 12,500)	607	910	92	78
Modified Draft General Plan (Population 14,000)	716	1,072	109	93
District-Wide	66,180	68,160	5,000	92,000

Source: Refs. 6 and 7

RHC = Reactive Hydrocarbons
NOX = Nitrogen Oxides
SO2 = Sulfur Dioxide
PM-10 = Particulate Matter, 10 Micron

Air quality concerns are also addressed in the Land Use Element and Transportation and Circulation Element of the Draft General Plan, particularly the need to balance jobs and housing (Goals I.A, I.E) and the promotion of non-automobile modes of transportation (I.A, III.G).

The effect of the adoption and implementation of the proposed Goals and Policies in the proposed Draft General Plan would be a reduction in regional emissions from those described in **Figure 50**. The amount of reduction can only be roughly estimated, as the effectiveness would depend on how aggressively and consistently the policies within the Draft General Plan are enforced during the environmental review process for future developments. The Goals and Policies contained within the proposed Draft General Plan are estimated to have the potential to reduce the impact of future development by perhaps 5 to 10 percent, but which would not avoid adverse regional air quality effects.

12.3 The growth in population accommodated by either Alternative I or Alternative II would increase the emission of air pollutants in the region, and the impact of accommodated growth would be significant and adverse.

C. MITIGATION MEASURES

Air Quality Effects of Construction

The severity of construction impacts at a construction site can be reduced to a level that is less-than-significant through application of appropriate mitigation measures. To ensure that construction mitigation measures are effectively addressed, final approval shall not be given to any development until the developer/contractor submits a satisfactory construction mitigation plan. This plan shall specify the methods of control that will be utilized, demonstrate the availability of needed equipment and personnel, and identify a responsible individual who, if needed, can authorize the implementation of additional measures, if needed.

12.1 The dust control portion of the construction mitigation plan shall, at a minimum, include the following:

- ◆ Suspend earthmoving or other dust-producing activities during periods of extreme winds.
- ◆ Provide equipment and staffing for watering of all exposed or disturbed soil surfaces at least twice daily, including weekends and holidays. An appropriate dust palliative or suppressant, added to water before application, should be utilized.
- ◆ Water or cover stockpiles of debris, soil, sand or other materials that can be blown by the wind.
- ◆ Sweep construction area and adjacent streets of all mud and debris, since this material can be pulverized and later resuspended by vehicle traffic.
- ◆ Limit the speed of all construction vehicles to 15 miles per hour while on site.

The implementation of the above measures would reduce the construction-related impacts of Alternatives I and II to a less than significant level.

12.2 Agricultural/Residential Air Quality Conflicts

New residential development located adjacent to active agricultural uses shall provide a buffer zone between homes and the agricultural uses. The size of the buffer zone shall be determined by the type of agricultural activities involved, with a larger buffer required where the agricultural activities require frequent tilling, waste burning, or pesticide application. The buffer zone may consist of open space, recreational uses, landscaped areas, streets or other non-intensive uses.

City staff shall develop guidelines for the width of buffer zones for various types of agricultural activities, to be used in the review of subdivision proposals. **The implementation of these measures could reduce the impacts of Alternatives I and II to a less than significant level.**

Regional Air Pollutant Emissions

- 12.3** All new developments within the city producing more than 200 trips per day shall be required to develop an air quality mitigation plan. This plan shall include an analysis of how the project would utilize site planning, mixed land uses, TSM measures (carpooling, van pooling, shuttle bus service, transit incentives, etc.) to reduce trip generation by 25 percent. Where this goal cannot be met by these methods, the plan shall provide for equivalent off- site mitigation through funding of air quality improvements such as new park and ride lots, support of transit, bicycle coupons, etc.

The implementation of the above measures would reduce the impacts of Alternatives I and II, but is projected to not reduce the regional cumulative impacts to a less than significant level.

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XIII. OTHER CONSIDERATIONS

A. VISUAL CONSIDERATIONS

1. Setting

The scenic resources of the Winters area consist of its historic and tree-lined older neighborhoods and architectural landmarks in the central business district, as well as panoramic views of Mt. Vaca and the Vaca Mountains. The farmhouses and orchards around which some neighborhoods have been built, and which are scattered around the periphery of the city at the present time, could also be considered valuable features of the visual landscape. The pattern of small subdivisions punctuated by individual, older farmhouses on larger lots, common in the areas north of Grant Avenue, is an essential element in the rural image of the city. The partly wooded, riparian environment surrounding Putah and Dry Creek, and the farmland surrounding the city are also important visual features. The General Plans both of the City of Winters and of Yolo County incorporate many policies intended to protect and conserve the environmental features that make up the unique scenic quality in the Winters area.

Yolo County has designated Highway 128 (Grant Avenue) between Interstate 505 and Lake Berryessa as a Scenic Highway Corridor in its General Plan, although the corridor is not specifically recognized by the State Scenic Highway Advisory Committee (Ref. 50, page IV-10). The corridor is intended to be appropriate for equestrian, bicycle and pedestrian pathways, scenic overlooks, small parks, and as a complement to open space and resource conservation areas. Specific design and appearance standards are set by the County for a wide range of issues, from tree preservation to architectural reviews, sign controls and limits on unsightly land uses (see Setting section, Chapter III) (Ref. 56, pages 47-48). The segment of Grant Avenue between I-505 and the existing urbanized area of Winters, extending for about two-thirds of a mile, is now undeveloped and dominated by views of open fields, orchards, woods and other native vegetation areas along Putah Creek, and the Vaca Mountains. This scenic area and view corridor is particularly important as a first image of both the city and of the scenic corridor.

2. Impacts

Development which would eliminate, obscure or otherwise harm the visual resources of the city, without establishing appropriate replacement or substitute views, would represent a significant impact on visual resources. Development which is not consistent with the objectives of the Yolo County designation of Grant Avenue as a scenic highway would also have a significant impact. New residential subdivisions which eliminate existing farmhouses and orchards in the areas to be developed, would have a significant impact on the rural image and appearance of the city.

New urban development of the Winters area will result in the loss of many views and vistas now within the city and at its edges, while creating new open spaces and parks with substantially dif-

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ferent visual characteristics and views. The overall visual character of the city will be substantially altered through the transformation of its surroundings from a rural environment to a mixture of primarily uniform, suburban housing, public facilities and business areas. The development of suburban amenities and services, such as the detention pond, golf course, and new schools and large parks, would strongly distinguish new development from the older areas of the city. In addition, the visual sense of a small town could be changed significantly by new commercial development outside of the downtown area.

The land areas fronting on the Grant Avenue entry to Winters from I-505, are primarily designated for a mixture of highway service commercial, neighborhood commercial and business park uses in the DGP Land Use Diagram. These land use designations would result in a pattern of continuous commercial development and loss of the views of the fields, orchards, Putah Creek vegetation, and the mountains. The commercial designations are, however, interrupted about midway on the north side by the areas designated for open space and residential uses, thereby potentially preserving for a distance of about 500 feet a small but possibly valuable portion of the view of the mountain from Grant Avenue.

The elimination of views from Grant Avenue would also occur west of Cemetery Drive, on the north, where open fields and orchards now exist, and further west where orchards are directly south of Grant Avenue. The overall impact of the DGP in these areas would be at odds with the spirit of the Yolo County Scenic Highways Element, and would not assist in the consideration of the designated area for official state recognition as a scenic corridor.

New view corridors towards the Vaca Mountains would emerge along the planned extension of Hemenway Street around the proposed central detention pond, and of open fields to the north along County Road 32A, the northern boundary of the development area and also west of County Road 88, the western boundary. The designation of areas in the northwest of the city for Rural Residential uses, at very low densities, and to a lesser extent for Low Density Residential uses, could contribute to the rural image of the city, and provide for some attractive views of the mountains from along the Main Street Loop road from Railroad Avenue west and south towards Niemann Street.

The implementation of the DGP (or of the Modified DGP) during the 20-year planning period, as defined by the Land Use Diagram, will result in the substantial loss of existing view corridors and visual characteristics in Winters, replacing them with urban uses, and providing for new visual resources of a kind that cannot be clearly identified at this time. The commercial development designated along Grant Avenue west of I-505, though it would presumably meet defined landscaping conditions and standards could not maintain and preserve the scenic views that now exist, regardless of how successfully design standards are applied.

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The central portions of the city will change less dramatically, and may retain more of the historic, small town flavor. The proposed redevelopment project will be an important factor in preserving the downtown area's qualities, as well as in eliminating the deteriorated, generally unsightly appearance of industrial buildings in the central area.

The Modified Draft General Plan would have virtually identical impacts on the visual resources of the city. The higher residential density proposed in the Land Use Diagram for Alternative II, for areas in the northwestern portion of the city would reduce the possibility of scenic vistas emerging along the Main Street Loop road. In addition, the moderately faster rate of population growth could slightly accelerate the growth of commercial uses along the sensitive Grant Avenue visual corridor. The Modified DGP Land Use Diagram designates as High Density Residential, the area directly north of Grant Avenue and west of the Open Space Preserve, which could result in a more substantial obstruction of the mountain view from Grant Avenue across the open space area. These aspects of the Modified DGP, however, do not result in significantly greater potential impacts on the visual resources of the city than are represented by the proposed Project.

The Draft General Plan incorporates multiple policies directed towards the preservation of visual and scenic qualities in Winters, as well as its small town character and agricultural heritage (Policy I.A.1). Policies in the Community Design Element direct the City to maintain a distinct agricultural appearance at the urban edges (VIII.A.5), to promote the development of a network of open spaces (VIII.A.6), and to establish design guidelines for new development along Highway 128 (Grant Avenue) consistent with its designation as a Scenic Highway (VIII.A.7; Program VIII.3). Those design guidelines are to be developed in cooperation with Yolo County and the state Department of Transportation (Caltrans). In addition, policies intended to serve the goal of maintaining and enhancing Winters' landscape are established, such as for protection of the existing canopy of mature trees (VIII.D.1), the planting and maintenance of new street trees (VIII.D.2 and 4), and the preservation and incorporation of existing orchards into site plans of new development (VIII.D.5).

The DGP's policies concerning the central business district focus on restoration of existing buildings and converting industrial buildings and properties to retail and other commercial uses, combined with infill development, and upgraded physical infrastructure, such as sidewalks, street lights, and the undergrounding of overhead utility lines (Policies I.B.1 through 5).

The DGP, as well as the Modified DGP, does not contain any specific policies which directly address the preservation of mountain views, or development of new view corridors, although the respective Land Use Diagrams identify possible suitable substitutes for existing vistas. In addition, there are no policies regarding the preservation of existing farmhouses with the areas which will be urbanized, which would aid in retaining the rural history and character of the city, but the

XIII. OTHER CONSIDERATIONS

DGP does promote the preservation of orchards in new development areas. The impact of these characteristics of Alternatives I and II, however, are not considered to be significant.

The Draft General Plan policies would avoid significant impacts on the scenic and visual resources of the city resulting from development under Alternatives I and II.

3. Mitigation Measures

No mitigation measures are necessary. However, the following measures should be applied to both the Project and to the Modified DGP in the consideration and development of design guidelines for the scenic highway corridor.

- The development of design guidelines for new development along Grant Avenue, particularly for the areas directly west of I-505, which form the principal initial image of the city and of the Scenic Highway, could potentially reduce the significant effects of commercial and other development on visual resources in this location. The guidelines should incorporate a high standard of landscaping and site planning, and substantial buffer zones or setbacks from the roadway could be incorporated to alleviate the concentration of commercial activity which would be permitted. Such a zone could accommodate the scenic corridor objectives for a bicycle path and create an attractive, natural appearance. A special architectural or landscaped "gateway" site, including a monument or other distinguishing feature, could be provided which would make the designation of Grant Avenue as a Scenic Highway and its visual importance to the community apparent to visitors

B. LIGHT AND GLARE CONSIDERATIONS

1. Setting

The Winters area has generally limited street or open area lighting at present, except in the vicinity of the central business district, in some of the newer neighborhoods, and near the I-505 interchange. Night sky clarity is at present quite good, due to the relative distance from major metropolitan areas or other sources of nighttime lighting. There are no major industrial facilities within the city which require high-intensity lighting.

2. Impacts

A major decrease in night sky clarity as a result of new street lights, nighttime parking lot illumination, or special lighting of industrial facilities, would represent a significant, adverse impact. In addition, commercial or industrial lighting which is not directed away from or shielded from residential areas would constitute a significant impact.

The increase in all categories of land uses as expected to occur with implementation of the DGP will require the installation of a variety of street lights and commercial and industrial lighting. The additional development will have a cumulative, additive impact on light and glare with a corresponding decrease in night sky clarity. There may be a cumulative, regional loss of such clarity when combined with other development nearby in Vacaville or other developing areas. The potential impact is somewhat more important given that many people will move to Winters with the expectation that night sky clarity will be excellent, and would not deteriorate. The change may be gradual, and not noticeable from season to season, or more sudden, when a large subdivision or major commercial center is completed and becomes illuminated on a nightly basis.

New residents of areas adjacent to proposed commercial development may find the lighting of these areas to be displeasing, particularly if high-intensity lighting is used. There are no land areas adjacent to residential areas which are designated for industrial uses, so the potential for conflict between such uses as a result of lighting required for nighttime industrial operations is limited. However, lighting used in the industrial areas in the northeast of the planning area could potentially spill out towards the residential areas to the west with adverse impacts.

The Modified Draft General Plan (Alternative II) would have generally similar effects as the Project (Alternative I), but with moderately higher residential density, could result in increased concentrations of street and house lights, and a slightly greater loss of night sky clarity.

The Draft General Plan incorporates a policy which requires lighting to avoid excess glare, spillage and brightness which would have the potential for loss of night sky clarity (VIII.D.7).

The DGP and the Modified DGP would reduce the potential for significant impacts in commercial or industrial lighting causing a glare disturbance in residential areas, or on night sky clarity in the Winters area. The contribution to regional loss of night sky clarity would not be significant.

3. Mitigation Measures

No mitigation measures are necessary.

C. CONVERSION OF AGRICULTURAL LAND

1. Setting

The existing General Plan of the City of Winters contains policies intended to preserve agricultural lands as part of the local economy and as open space. The land use policies confine urban development to areas within incorporated or newly annexed areas, and to areas contiguous with existing development. The Yolo County General Plan contains several policies designed to conserve agricultural land and enhance the agricultural economy. Specifically, Land Use Policy #6 states that "it is the policy of Yolo County to vigorously conserve and preserve the agricultural lands in Yolo County...especially in areas presently farmed or having prime agricultural soils...and outside of city limits" (Ref. 27, page 14).

The California Department of Conservation maintains a Farmland Mapping and Monitoring Program which identifies the capability or productivity of the state's agricultural lands. A large portion of the area which will be developed as a result of implementation of the Draft General Plan are designated as Prime farmland, as shown in **Figure 51**. However, no soils in the Winters area are classified as having Statewide importance, and there are only relatively small areas of "Unique" farmland, defined as of lesser quality but in use for major cash crops in the state economy. The remainder of the land which is potentially useful for farming is categorized as "Farmlands of Local Importance" as defined by the County of Yolo.

The majority of the agricultural land in the Winters area is presently or in the past has been planted in orchards for almonds, apricots, walnuts, alfalfa, irrigated row crops and grain, and is also left as vacant pasture. Row crops, grain and pasture are the more common uses in the area north of the existing urban area. **Figure 52** shows the principal crops typically planted or harvested in the Winters area. Total field and vegetable crops in Yolo county were valued at \$137,000,000 in the 1987 Agricultural Crop Report, on the basis of 480,000 acres of farmland under cultivation. These farmlands yielded an average value of \$285 per acre in crops (Ref. 30). The 1985 Yolo County LAFCO determinations for the Winters Sphere of Influence, or Urban Development boundaries, shown in **Figure 53**, allow for the conversion of all the land within the Planning Area by the year 1995, with the exception that the approximately 140-acre area to the northeast of the city, between Railroad Street and I-505, should not be built out until 2005, or developed prior to 1995. It should be noted that **Figure 53** reflects 1985 City limits, which have been expanded in a number of locations around the city (compare with **Figure 2**, Chapter II).

The California Land Conservation Act (Williamson Act) encourages conservation of agricultural lands by offering tax incentives to farmers who agree to adopt a contract which prevents non-agricultural development for a minimum period of ten years. There are no land parcels within the Urban Limit Area currently under Williamson Act agreements, although some areas to the north, and west of Winters, and the majority of the agricultural land in Solano County directly south of the city across Putah Creek, are subject to Williamson Act agreements.



Figure 51
IMPORTANT FARMLANDS MAP
 Draft General Plan EIR
 City of Winters, California

- P** **PRIME FARMLANDS**
 Lands with the best combination of physical and chemical features for the production of agricultural crops
- U** **UNIQUE FARMLANDS**
 Lands of lesser quality soils used for the production of the State's leading agricultural cash crops
- L** **FARMLANDS OF LOCAL IMPORTANCE**
 Lands of importance to the local agricultural economy, as determined by each county's board of supervisors.
- D** **URBAN AND BUILT-UP LANDS**
 Lands occupied by structures with a building density of at least one unit to one and one-half acres, approximately six structures to a ten-acre parcel
- X** **OTHER LANDS**
 Lands which do not meet the criteria of any other category.

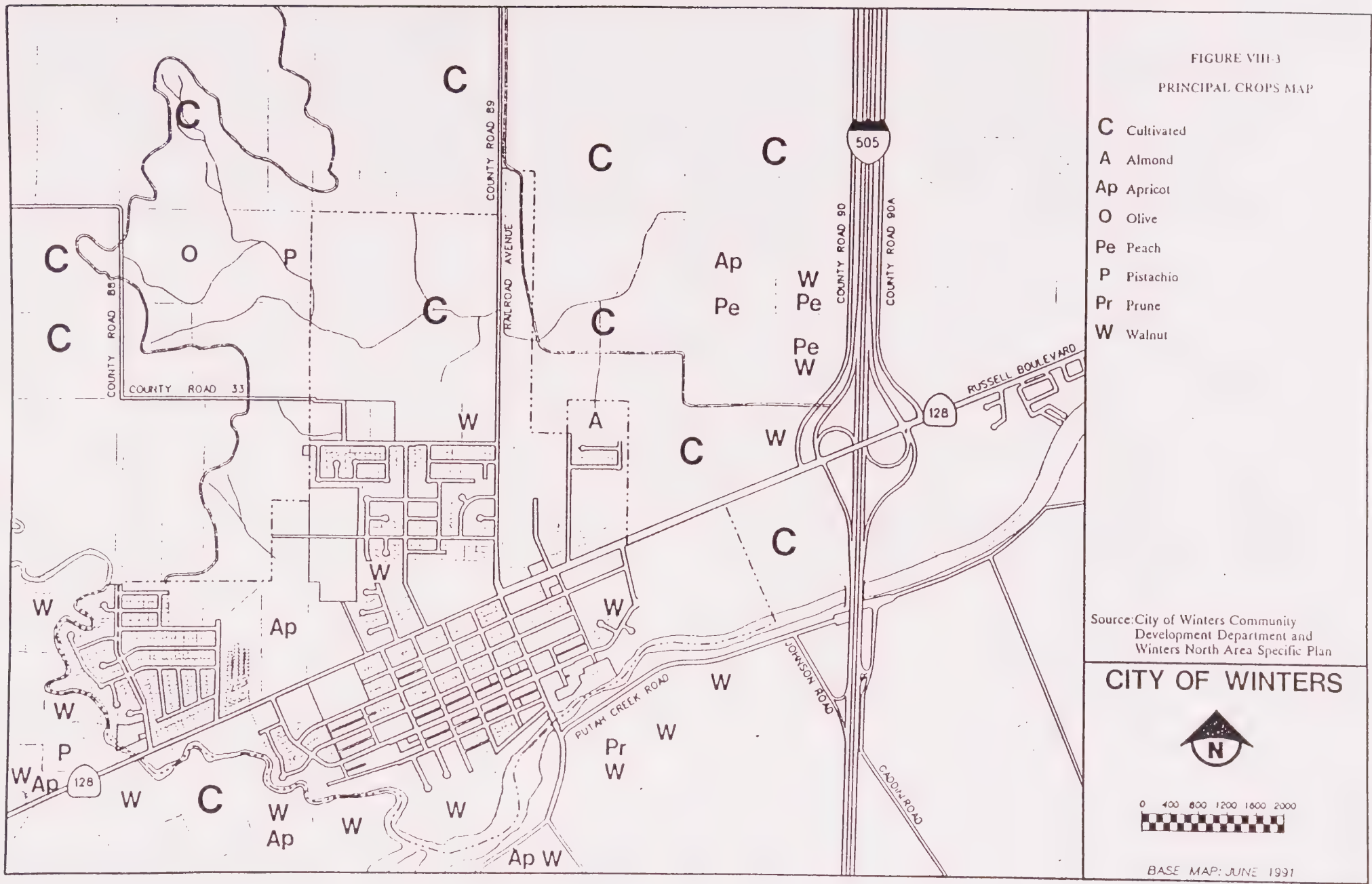


Figure 52
PRINCIPAL CROPS MAP
 Draft General Plan EIR
 City of Winters, California

Figure 53
SPHERE OF INFLUENCE DETERMINATIONS
Draft General Plan EIR
City of Winters, California

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Yolo County utilizes a zoning category of Agricultural Preserve (A-P), as a regulatory system of preventing the uncontrolled conversion of agricultural land to urban uses, and as shown in **Figure 53**, there is one area designated as A-P within the planning area of about 190 acres, and another area of about 370 acres adjacent to the planning area directly to the west. The A-P area within the planning area includes 130 acres owned by the City for use as spraying fields for disposal of wastewater from the adjoining treatment plant. The spraying fields are categorized as "Farmlands of Local Importance," while about 20 of the remaining 60 acres are defined as "Unique" farmlands, because they contain productive orchards. Areas zoned A-P may be rezoned to an urban designation when their annexation is approved.

2. Impacts

Conversion of Agricultural Land

The conversion of prime agricultural land to urban uses is considered to be a significant impact. The importance of the impact is in the context of a rapid rate of loss of important farmland in the California Central Valley, which reduces the agricultural productivity of the region, and accelerates the conversion process exponentially. The price of farmland becomes inflated relative to the costs of agricultural production, and decreases the economic viability of established farming operations.

The Draft General Plan would result in the annexation of approximately 550 acres to the City of Winters, which constitute about one-tenth of one percent of the total 1988 Yolo County Important Farmland Inventory of 444,179 acres (Ref. 6, Table C-38). Development projected to occur by the year 2010 in the DGP will convert an estimated 610 acres of "Prime" farmland to non-agricultural uses, of which about 200 acres are outside the city limits. The figure of 600 acres is equivalent to about one-quarter of one percent of the total "Prime" farmland in Yolo County (totalling 272,226 acres in 1986). The estimated 1987 cash value of the crops yielded by the Project area outside the city limits, in all farmland categories, is about \$142,500, and income from these sales would be eliminated as the area is developed over time.

The total impact would be significant, particularly if considered in the regional context of ongoing conversions of agricultural land to urban uses in Woodland, Davis, West Sacramento, and other locations in Yolo county alone. Other Central Valley communities, particularly in neighboring Solano county, are witnessing similar conversions of agricultural land, which on an individual case-by-case basis may appear negligible, but which in aggregate are of cumulatively significant character in even a relatively short period of time.

Implementation of Alternative II, the Modified DGP, would result in the conversion of the same acreage as the Draft General Plan to urban uses. The moderately increased population concentra-

tion, and the slightly faster growth rate which is assumed to occur with Alternative II, could potentially increase the cumulative, regional demand for development of new residential areas and urban services in unincorporated areas outside and around the city of Winters.

The Draft General Plan incorporates policies to promote the continued productivity of agricultural land, and to prevent its premature conversion to urban uses (Goal VI.B), such as directing the City to support agricultural uses until development or annexation is imminent (VI.B.1 and 2). Other forms of support for agricultural activities include support of legislation at the local and kstate levels for tax and other incentives (VI.B.3), a mixture of farmers' markets, on-site sales and special events (VI.B.4), and a commitment to adopt a right-to-farm ordinance (VI.B.6).

13.1 The implementation of either the DGP or the Modified DGP would result in the conversion of an identical acreage of agricultural land to urban uses, which is a significant and unavoidable impact of urban expansion of the city.

Urban/Rural Boundary

In general, new development will introduce a new urban/rural boundary that will place some restrictions on the cultivation practices used in agricultural operations surrounding the planning area. The impact on local agricultural productivity would, however, extend beyond the planning area boundaries, for other reasons. Development of urban uses, especially residential areas, adjacent to established farming operations, can result in significant conflict between the two land uses as each constrains the potential uses of the other. Residents abutting a farm operation may make complaints about odors, noise, aerial and surface pesticide spraying, and other activities normal for a farm, as well as allow their domestic animals to roam into the fields, causing crop damage, farm animal conflicts, and hazards for farm machinery operations. Residents and their children may also trespass, with similar hazards, and could result in vandalism carried out to curtail agricultural activities perceived as a nuisance. A failure to recognize these problems and to anticipate and provide adequate measures to avoid them, would contribute a significant impact of the Project, and could accelerate the cessation of agricultural uses in the area surrounding Winters.

A unique feature of the Draft General Plan Land Use Diagram is the designation of about 80 acres of "Prime" farmland as an Open Space Preserve, on which agricultural uses could continue throughout the planning period, or until 2010, assuming no amendment to the Diagram during that period. Though this acreage would not compensate for the loss of agricultural land resulting from development elsewhere in the planning area, it does slow the pace of conversion to urban uses. It is an important element in the configuration of the Land Use Diagram, which combined with other land uses designated along the northern boundary of the planning area, substantially minimizes the concentration of residences adjacent to the farmlands north of the boundary. The

designated land uses include a community park, a relatively small industrial designation for an established assembly plant, a small (four-acre) area designated for high density residential, and a large area of low density residential projected to average about three units per acre. This lower density would reduce the concentration of single family homes adjacent to agricultural operations, and the likelihood of conflicts between the two uses.

The northwestern area of the city, north of County Road 32A, is designated for public-quasi public uses, and includes the wastewater treatment plant and the spraying fields, uses which would not conflict with agricultural activities. The potential development of the spraying fields as a golf course would result in more unique and specialized conflicts with agricultural operations, primarily aerial spraying. Golfers could potentially be exposed to harmful doses of pesticides, if fairways are not sufficiently distant from agricultural fields or orchards.

The potential for conflict between residential uses along the western edge of the planning area, north of Niemann Street, is reduced to a large extent by a combination of areas designated for low density and rural residential uses, and for public uses (the old landfill site). South of Niemann Street to Dry Creek, for a distance of about 1,200 feet, an area is designated for medium density residential uses which could result in some urban-agricultural conflicts. The urban edge along the other boundaries of the city is defined by Dry Creek to the southwest, Putah Creek to the southeast, and I-505 on the west, each of which creates a buffer between urban and agricultural uses. The effectiveness of these buffers is likely to vary according to their width, and the actual uses of the adjoining land.

The Modified Draft General Plan Land Use Diagram (Alternative II) is different from the DGP (Alternative I) in that it designates two large land areas adjacent to the city limits and active agricultural operations on the north (west of Railroad Avenue) and west (between Niemann Street and County Road 33) for higher residential densities (medium density). This configuration would have the potential for creating an increased likelihood of urban-agricultural conflicts.

The Draft General Plan, as well as the Modified DGP, provides a general policy for the buffering of agricultural uses from urban residential uses along the northern and western boundaries of the Urban Limit Line (VI.B.3). The City is directed to adopt a right-to-farm ordinance (VI.B.6), which would serve as a means for protecting farmers from complaints by urban area residents, and for resolution of conflicts.

The proposed land use configuration of the DGP (Alternative I) reduces the potential for constraints on agriculture due to incompatible land uses, and provides policies which would reduce the potential for conflicts to a less than significant level.

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The Modified DGP Land Use Diagram (Alternative II) would result in somewhat greater potential for constraints on agriculture due to incompatible higher density residential land uses, but which would be mitigated by the policies which are incorporated into the Modified DGP.

3. Mitigation Measures

The development of new urban land uses in the Winters area, would remove a significant amount of agricultural land from production, which cannot be directly mitigated by the Draft General Plan or the Modified DGP. The following measures may be incorporated in either Alternative I or II, however, to ensure that lands in agricultural use or with productive agricultural soil value, will not be converted to urban uses prematurely, and that such conversion will avoid Prime farmland and conflicts with adjacent continuing agricultural uses. Consideration should be given to the mitigation measures listed below.

- 13.1A** Future conversion of agricultural land to urban uses should occur on lower quality soils, when such land is contiguous with the existing urbanized area and its service-delivery systems and infrastructure connections.
- 13.1B** Existing farmland of high productive value should be protected and conserved through planning policies that will minimize the likelihood of their conversion to urban use.
- 13.1C** A farmland protection program, under the auspices of a farmland trust should be adopted that would utilize tools such as transfer of development rights and purchase of development rights or conservation easements.

The above measures would reduce many of the adverse effects of Alternatives I and II, but would not reduce the cumulative, regional loss of agricultural land to a less than significant level.

In addition to the above measures, the following considerations should be made at the time that development adjacent to the Urban Limit Line occurs:

- Buffers, as required by the DGP, should be developed with a distance of 300 feet as the optimum buffer width to minimize conflicts such as vandalism, theft, pesticide spraying, noise and dust. Such buffers could include Dry Creek, Putah Creek, or I-505.
- With specific regard to Alternative II, parcels adjacent to the Urban/Agricultural interface boundary should be designated for lower density residential use, and medium density designations should be applied to more centrally located parcels, particularly if a buffer narrower than suggested above is utilized.

D. CULTURAL RESOURCES/ARCHAEOLOGY

1. Setting

Before European settlers arrived in the Sacramento Valley, Indian villages existed on the banks of Putah Creek. Hunter-gatherers, the original inhabitants of the Winters area subsisted on acorns, fish and small game. When Governor Juan Bautista de Alvarado granted 17,750 acres of land along Putah Creek to William Wolfskill in 1842, it was called Rancho Rio de Los Putos, a name derived from the Patwin Indian village name of "Putato". The first European settler in this area was John Wolfskill, who established his residence on the south side of Putah Creek in 1851. In 1865, Theodore Winters purchased land in this area, and in 1875 a town was platted from 80 acres donated in two 40-acre lots, one donated by Winters and the other donated by D.P. Edwards. This donation enabled the Vaca Valley Railroad to construct a railroad bridge across the Putah Creek and a depot at the northern terminus of the line. Local agriculture and the railroad provided the basis for commercial activity in the town, which was incorporated as the City of Winters in 1898. (Ref. 56, pages 30 and 31; Ref. 50, pages VIII-4 and VIII-8.)

The Winters area has not been studied comprehensively for archaeological sites, but the Northwest Information Center of the California Archaeological Inventory conducted a records search in 1991 which indicated the presence of three archaeological sites in the Winters area. One site, at an undetermined location in or near the present-day city, was historically identified as the Native American Indian village of "Liwai." This village, as with most common native Indian sites, would have been located near a creek, such as Dry or Putah Creeks, and its site could contain projectile points, mortars and pestles, shells and human burial remains. The Native American Heritage Commission, however, has expressed no knowledge of any significant archaeological sites in the local area. Because of incomplete records, and limited archeological surveillance of the area (under five percent), the Northwest Information Center suggests that additional field surveys should be completed prior to any site development.

In 1983, the City commissioned the preparation of the "Cultural Resources Inventory Report for Winters, California", prepared by Historic Environment Consultants, which surveyed 79 historic structures. Among the various styles of architecture, including Colonial, Classical and Gothic Revival, Queen Anne and Italianate styles, 14 were determined to be suitable for inclusion on the National Register of Historic Places. Preservation of these buildings requires special planning attention.

2. Impacts

The implementation of the DGP would initiate urban development that could result in the destruction or overcovering of pre-historic archaeological sites, which would represent a sig-

XIII. OTHER CONSIDERATIONS

nificant impact on the cultural resources of the Winters area. Sites containing valuable pre-historic materials could be encountered either in the existing urban area or on the periphery in presently undeveloped land. In addition, architectural alterations of historic structures which damage their appearance relative to the original design, would have an adverse impact on the historic qualities of the city.

Because most of the land areas proposed for new urban development are generally distant from Putah and Dry Creeks, and are currently used for agricultural purposes, it is unlikely that sites of major archaeological or historic significance would be encountered during development. Some parcels of land, such the area north of Putah Creek between I-505 and Morgan Street may yield some important archaeological findings. However, due to the lack of substantial archaeological information, field surveys and representative excavations may be appropriate for a variety of development proposals.

The Modified Draft General Plan (Alternative II) would result in urban development within the same planning area as Alternative I, the proposed Project, with the same potential for adverse impacts on Native American archaeological sites. Redevelopment is also promoted by the same policies as the Project of areas with historic buildings and structures, which could potentially be altered in an adverse, destructive manner.

The DGP (and the Modified DGP) incorporate policies in the Recreational and Cultural Resources Element which are intended to preserve both the architectural and Native American heritage of the city. Policies concerning historic preservation of historic structures require the City to adopt the State Historic Building Code, develop other guidelines for preservation, rehabilitation and infill development, and encourage preservation and registration of significant historic structures with state and national listings (V.D.1 through 5). Efforts to preserve such structures extend to salvaging building facades when entire structures cannot be rehabilitated, or moving structures when redevelopment requires their removal (V.D.6), and consideration of restoration of the Railroad Avenue Bridge (V.D.6 and 7).

The City will refer development proposals with potential for adverse impacts on archaeological sites to the Northwest Information Center of the California Archaeological Inventory, and no project would knowingly be permitted which may adversely affect a site, without first surveying the site, defining mitigation measures, and implementing measures according to Appendix K of the CEQA guidelines (V.F.1 and 2).

The policies of both the Draft General Plan and the Modified DGP will prevent development from occurring which would have a significant adverse impact on the city's cultural resources, including potential Native American archaeological sites and important architectural buildings and structures.

3. Mitigation Measures

No mitigation measures are required to avoid or lessen significant impacts on cultural resources. However, the following measures may be considered as appropriate conditions for development procedures in the planning area, which would apply to both Alternatives I and II.

- In the event of an archaeological discovery during excavation or other construction work, in areas which have not been surveyed in detail for archaeological resources, construction work should be halted in the immediate vicinity of the find until a complete evaluation by a qualified archaeologist can be completed. The Native American Heritage Commission shall be notified of any discovery of human remains which may potentially be of Native American origin.
- The City should consider adding policies to the Recreational and Cultural Resources Element which encourage the use of government and private loans for refurbishing historical buildings and which support legislation to provide incentives for historical preservation.

XIV. OVERVIEW OF EVALUATION

In this chapter, the effects of the proposed Draft General Plan are examined under five general categories from which some of the overall salient conclusions of the evaluation can be derived. The consideration of the Project within these categories is mandated by the California Environmental Quality Act (CEQA), and they include: unavoidable adverse impacts; irreversible environmental changes; short-term uses versus long-term productivity; and growth-inducing impacts. These assessments of impacts assume that identified mitigation measures will be implemented.

A. UNAVOIDABLE ADVERSE EFFECTS

The implementation of the proposed Project, including both the Draft General Plan and the associated infrastructure Master Plans, combined with the mitigation measures recommended in this EIR, will result in adverse effects which are unavoidable for the foreseeable future. These effects may in the future be reduced to a less than significant level by the addition of presently undetermined mitigation measures, such as might be produced through advances in technology, or social behavior patterns which cannot now be anticipated.

In accordance with the California Environmental Quality Act (CEQA), the City of Winters would be required to adopt a Statement of Overriding Considerations for these impacts as part of its approval of the Draft General Plan.

- 9.3** Urban development of agricultural and other vacant lands around the city will result in an unavoidable regional net loss of Swainson's hawk foraging habitat. The Habitat Restoration Plan defined as a mitigation in the EIR would not avoid the loss of this habitat, but would substantially reduce the cumulative impact.
- 12.3** An increase in population and the resulting vehicle traffic would generate significant levels of pollution, including hydrocarbons and nitrogen oxides which contribute to regional ozone levels, and would have unavoidable regional air quality impacts.
- 13.3** The conversion of prime agricultural land and other important farmlands to urban land uses is a significant, unavoidable impact of development resulting from adoption of the Project.

B. IRREVERSIBLE ENVIRONMENTAL CHANGES

The following changes appear to be irreversible if the proposed Draft General Plan, as identified in this document, is implemented. These changes are not significant, adverse impacts, and does not include the unavoidable adverse impacts defined above.

- The city of Winters will encompass a substantially larger urban area, and transform agricultural lands into new residential neighborhoods and commercial and industrial districts, in turn promoting a much larger population than currently exists. The addition of a variety of land uses, including a variety of housing types, industrial parks, and commercial services, and a larger population would upgrade the city substantially in its status and perception for both residents and visitors, and in its operation as a more self-sufficient, independent community.
- The configuration of vehicular access within the city will be substantially altered and the form of the city along the new Main Street Loop Road will have a predominant role in the form of future development in the longer term, outside the current Planning Area.
- Alteration of the visual character of portions of the city would result in a change from the image of a very small town which is minimally affected by "the outside world," to that of a dynamic small town that is responding to regional growth in the best manner possible. More contemporary architecture in expanding residential and commercial areas will contribute to the change in the city's image.
- Construction of new housing, places of business and other facilities will result in the consumption of non-renewable construction materials, water, and energy resources. The use of these resources would be ongoing over the life of the General Plan, and is necessary to achieve the goals of the General Plan.

C. SHORT-TERM USE VERSUS LONG-TERM PRODUCTIVITY

Although alternative land uses and patterns which could be developed in the city could provide a higher concentration and efficiency of land use, such as higher density housing, or promotion of taller, centrally-located office buildings, such uses would have undesirable environmental and social consequences that would conflict substantially with the overall purpose of the proposed Draft General Plan to preserve and promote the city's small-town, agriculturally-based character, traditional neighborhoods and open spaces, while accommodating local and regional demand for a type of growth which the Draft General Plan would enable to occur.

D. GROWTH-INDUCING IMPACTS

The proposed Draft General Plan would enable the development of new residential, commercial, industrial and other land use development within the city of Winters. It is assumed that the city may develop residential uses more rapidly than employment-generating uses in the short term,

XIV. OVERVIEW OF EVALUATION

while a jobs/housing balance is a long-term goal requiring steady initiative on the part of the City and other interests (e.g., Chamber of Commerce). With an imbalance of more housing than jobs, there would be marginal demand for residential development outside of the city, with the possible exception of limited growth in retirement or vacation homes near Lake Berryessa or elsewhere in and along the Vaca Mountains, the residents of which could more easily obtain commercial services in Winters.

In the long term, as a city with many more services and job opportunities, and a closer jobs/housing balance, Winters could potentially emerge as a "sub-regional" center, to which a proportion of persons employed in Winters may commute from other surrounding areas. The construction activity and commercial and industrial development could over time create substantial numbers of jobs, possibly resulting in more demand for housing than the proposed Draft General Plan envisions, and resulting in demand for housing (as well as other urban and commercial services) outside of the city. Some of this demand might be met in other city jurisdictions, such as Vacaville, Woodland or Davis, while other pressures could be placed on rural areas to be developed with urban land uses. This demand, or growth-inducing impact, however, would be managed, or mitigated, through the land use policies of the Yolo County General Plan, assuming their implementation is effective. Those policies would prevent urban land uses in areas other than those immediately adjacent to existing urban areas, such as Winters.

E. CUMULATIVE IMPACTS

Cumulative impacts are identified as "two or more separate impacts which, when taken together, are considerable, or which compound or increase other environmental impacts" (California State CEQA Guidelines, Section 15355). Cumulative impacts can result from individually minor but collectively significant projects taking place over time in different but spatially related locations.

This Draft EIR has evaluated the combined effects of growth within the Winters urban limit line as defined by the proposed Draft General Plan. No other development project has been identified in the Winters area which would change the environmental effects of adoption and implementation of the Project. However, in terms of the Sacramento Valley region, development in Winters would combine with growth in cities such as Sacramento, Davis, Dixon, Vacaville, and Fairfield (the I-80 corridor), as well in Woodland, to have the following cumulative environmental effects:

- Development in Winters could combine with regional growth to contribute to increased vehicular traffic on Interstates 505 and 80, Highway 128 and other roadways, with resulting significant congestion at peak-hours. This congestion could require major expansion of roadway facilities, or promotion of substitute means of transportation, including bicycling, car- and vanpools, bus and rail services, or other technologies. The Winters Draft

XIV. OVERVIEW OF EVALUATION

General Plan includes provisions which would minimize the contribution of Winters to this potential cumulative congestion, assuming the successful implementation of those provisions.

- The combination of urban development in individual towns and cities throughout the Sacramento Valley on agricultural fields, pastures and even small areas of wetlands, which provide living and foraging habitat for special status plants and animals, is a substantial, cumulative impact. The Winters Draft General Plan includes policies to cooperate with surrounding jurisdictions in the preparation of a regional mitigation program for endangered or threatened species, which could partly compensate for the cumulative loss of habitat.
- Increased vehicular traffic would also result in a deterioration of air quality within the Sacramento Valley air basin. Measures incorporated into the Draft General Plan to promote alternative means of commuting would partially mitigate this cumulative impact.
- The conversion of prime agricultural lands to urban uses in Winters which the Draft General Plan would enable is relatively small, though significant, compared to the total acreage of such lands in Yolo County, or in the Sacramento Valley. However, the combination of the local impact in Winters with similar impacts in the other cities in the region, is a substantial, cumulative impact. The Draft General Plan specifies a variety of policies to prevent the premature conversion of prime agricultural land, and to promote the region's agricultural businesses, which will reduce the severity of the cumulative impact, though not avoiding it altogether.

XV. ALTERNATIVES TO THE PROJECT

CEQA Guidelines (Section 15126 (d)) require that an EIR include a description of a range of alternatives to the project, which could feasibly serve the purposes of the project, and to provide a comparison of the merits and adverse effects of the alternatives. The consideration of a "no-project" alternative is also required in order to illustrate the desirable and undesirable effects of not approving the project as proposed. Furthermore, the alternatives are to be "capable of eliminating any significant adverse environmental effects or reducing them to a level of insignificance, even if these alternatives would impede to some degree the attainment of the project objectives, or could be more costly" (Section 15126(d)(3)).

In this Draft EIR, a total of six Alternatives are considered in the context of their potential impacts at the completion or buildout stage, assumed to be the year 2010, in order to be consistent with the planning horizon of the 1991 General Plan. The Project (the proposed Draft General Plan) is defined as Alternative I, and has been described and evaluated in the preceding chapters, together with Alternative II, the Modified Draft General Plan. The remaining four Alternatives are described and evaluated in this chapter, and are listed below:

- III The "North Area Specific Plan/Existing General Plan" (NASP/EGP) Alternative,** consisting of the existing General Plan as originally adopted in 1985 and last revised in 1986, as amended to incorporate the North Area Specific Plan, a development proposal concerning land areas primarily north of the city of Winters, and which is projected to result in total city population of 15,000 persons.
- IV The "No-Project/Existing General Plan" Alternative,** represented by the existing General Plan adopted in 1985 and last revised in 1986, and utilizing existing land use designations. These land uses are projected to result in a population of 15,000 persons.
- V The "Reduced Density Plan" Alternative,** characterized by urban development occurring at a lower density, with fewer major infrastructure and public facility improvements, and resulting in a projected population of 11,000 persons.
- VI The "Compact Development Plan" Alternative,** consisting of a land use pattern and selected public improvements which are configured for the purpose of avoiding or reducing the significant environmental impacts of the Project (the proposed 1991 General Plan), primarily through the promotion of higher density development within a smaller area of urbanization. This Alternative is devised to constitute the "Environmentally Superior" Alternative, and is projected to result in a population of 12,500 persons.

Although many other alternatives could be hypothesized, those identified for consideration represent a reasonable range of possible options. To the greatest extent possible, the alternatives

are described and evaluated in quantitative terms, utilizing the same units of measure for each category of potential impact, and using the same thresholds of environmental significance as in the previous chapters of the EIR. However, in many areas, the Alternatives are evaluated only in conceptual, qualitative terms, due to the difficulty of defining each Alternative in the level of detail necessary for an evaluation equivalent to that given to the Project. In addition, only a general type of assessment can be made in view of the hypothetical character of many major aspects of the Alternatives. The discussion in this chapter focuses on topic areas in which the alternatives would either increase or reduce the degree of environmental impact, as compared with the proposed Project.

A. ALTERNATIVE III - NORTH AREA SPECIFIC PLAN/EXISTING GENERAL PLAN

Alternative III is based on the application for a General Plan Amendment (GPA) by a consortium of developers, the character of which was defined in the report titled Winters North Area Specific Plan, dated December 1988, (Ref. 33) and hereafter referred to as the NASP. The NASP addressed the vacant land north, east and west of the existing developed portions of Winters, with a total land area of about 887 acres. Approximately 180 acres of this total area is in public ownership, including the 30-acre former landfill site and the 129-acre site occupied by the City's wastewater treatment plant and currently being used as spraying fields. These sites combined are proposed to be converted into a golf course. The proposed NASP land uses are projected to result in approximately 523 acres of residential land uses, with 2,256 new dwelling units, and 54 acres of commercial and industrial uses. As a proposed Amendment to the 1986 General Plan, Alternative III would consist of the NASP superimposed upon the existing land use map designations, and would constitute a major land use change from the existing 1986 General Plan (EGP). The combination of the NASP and the otherwise unaltered non-NASP portions of the city are together defined as Alternative III or as the "NASP/EGP," for the purpose of comparison with the Project and the other Alternatives. In addition, although the NASP proposed that phased implementation of the plan would occur over the course of a six to ten year period, for the purpose of comparison in the EIR, Alternative III is assumed, in common with the existing General Plan, to be built out no earlier than the year 2010.

The NASP contains many of the proposed improvements identified in the proposed Draft General Plan, including new parks, a central lake as a public amenity and flood-control facility, two new school sites, substantial residential development areas, commercial recreation facilities, shopping areas, office and industrial sites, a public golf course, a new loop arterial roadway and a pedestrian/bike pathway system to link individual neighborhoods with public facilities.

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The NASP includes Goals and Policies that identify the desired general characteristics of land use, circulation, and public facilities, and also defines the means of implementation. The individual policies will be discussed in following sections as they relate to particular categories of impacts, i.e., planning policy, circulation, public facilities and financial requirements. In general, however, the goals for the project area, as defined by the NASP, are stated as follows:

- ◆ To achieve a balance and mixture of housing, recreation and employment land uses which contribute to Winters' small town character;
- ◆ To provide a safe and aesthetic circulation network which complements and integrates existing roadways;
- ◆ To provide safe and efficient public services that will not burden existing residents; and
- ◆ To assure means of financing roads, utilities and other facilities in advance of or in coordination with new development.

The proposed land use map of the NASP, in combination with the existing General Plan, is shown in **Figure 54** as the NASP/EGP. The proposed land use designations of the NASP, which are based on designations in the existing General Plan, are described below:

■ Residential Land Use Designations

- ◆ Low Density Residential: intended to accommodate the lowest density proposed for rural-to-urban transitional areas, with gross densities from 3.3 to 5.0 detached single-family units per acre, on 6,000 to 9,000 square-foot lots. In these areas both site-built and mobile or manufactured homes would be permitted. This designation would utilize the City's existing R-1 6000, R-1 7500, and R-1 9000 single-family residential zoning districts, and the PD (Planned Development) overlay to define permitted development characteristics.
- ◆ Planned Residential: intended to provide areas of moderate density for transition from low density to high density housing or to commercial uses, with gross densities between 5.1 and 6.2 dwelling units per acre, on land areas providing from 4,000 to 6,300 square feet per unit. Detached single-family homes and duplexes would be permitted in this designation, which would utilize the R-2 (Two-Family Residential) zoning district and the PD overlay to specify development standards.

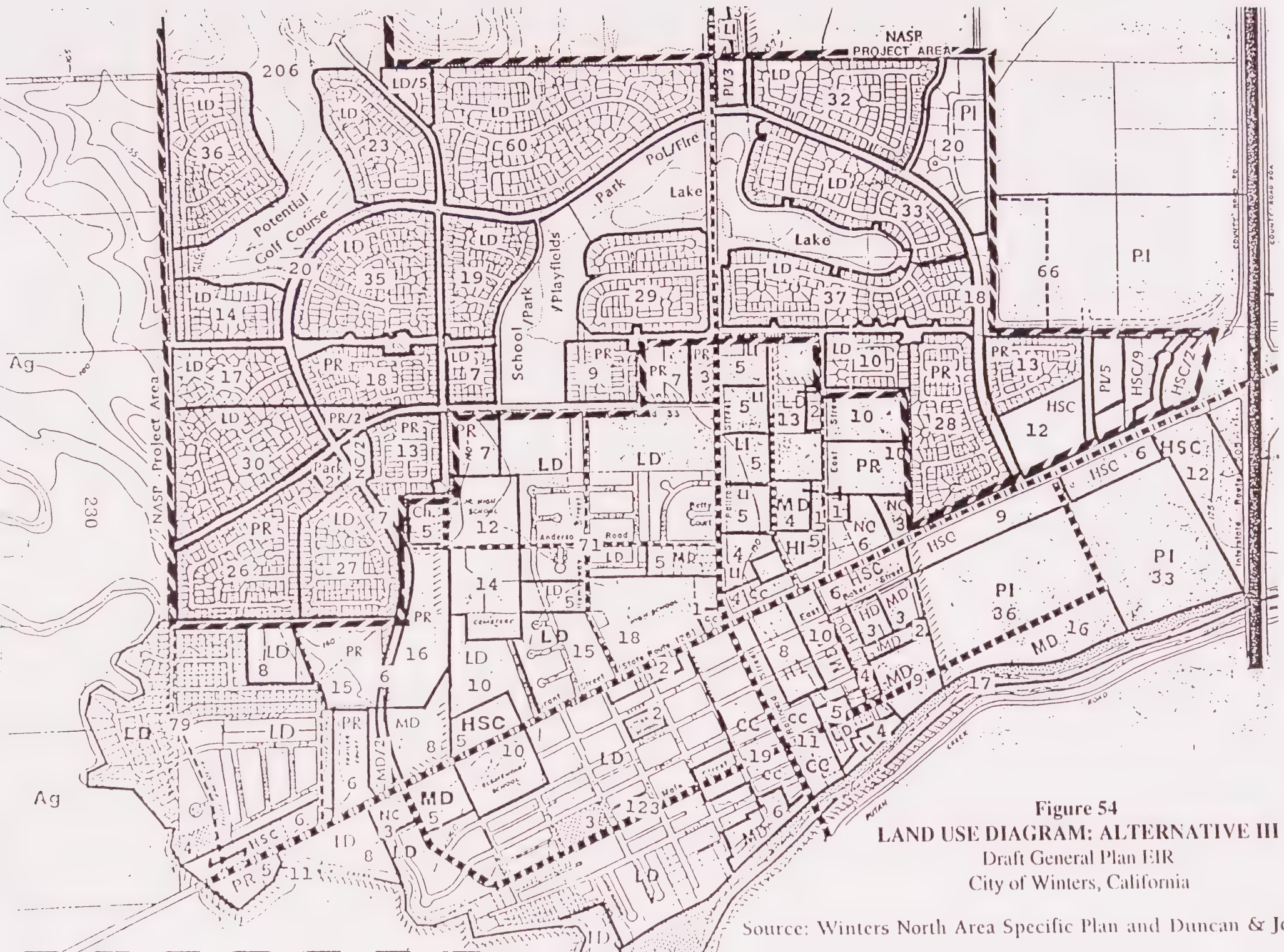


Figure 54
LAND USE DIAGRAM: ALTERNATIVE III
 Draft General Plan EIR
 City of Winters, California

Source: Winters North Area Specific Plan and Duncan & Jones

XV. ALTERNATIVES TO THE PROJECT

■ Non-Residential Land Use Designations

- ◆ Neighborhood Commercial: intended for a full range of convenience shopping and service facilities on a single site for a specific neighborhood, including uses such as a market, liquor store, drug store, mini-service gas station, laundry, other personal service establishments, limited professional offices and a child-care facility.

This designation would utilize the C-1 (Neighborhood Commercial) zoning district and a PD overlay to specify the permitted uses, and lot coverage of the gross floor area is estimated to be a maximum of 50 percent. Permits would be required for the gas station and child-care services.

- ◆ Highway Special Commercial: intended to provide a wide range of commercial uses, adjacent to Grant Street/Highway 128 and near I-505, with four sub-categories for development: 1) business and professional offices; 2) general retail; 3) visitor services (gas stations, fast food, motels, etc.); and 4) large-lot commercial operations (nurseries, equipment sales, storage, lumber yards, etc.). The designation would provide employment for approximately 800 persons, and is intended to utilize the C-S (Special Commercial) zoning district and a PD overlay to define development standards. Estimated lot coverage of the gross floor area would be a maximum of 40 percent.
- ◆ Planned Industrial: intended to establish an industrial-business park environment for office, light manufacturing, warehousing and support businesses. This designation is projected to provide employment for about 670 persons, and would utilize the M-P (Industrial Park Zone) zoning districts. A maximum of 40 percent lot coverage of the site area for gross floor area would be permitted.
- ◆ Public/Quasi-Public Uses: intended to utilize land set aside from the above uses for streets, roads, a Police and Fire Protection facility, schools, parks, "greenbelt" paths, utilities and other public facilities. Schools, roadways and utility easements would use the zoning district compatible with the surrounding adjacent uses, while the P-R (Park, Parkway and Recreation) zoning district would be utilized for parks, pedestrian and bike paths, golf course and other recreational areas.

The distribution of acreage among the land use designations, the estimated numbers of housing units and gross square footage of non-residential floor area in the NASP/EGP are summarized in **Figure 55**. Acres are rounded from those provided in the NASP.

Figure 55
DISTRIBUTIONS OF LAND USE DESIGNATIONS: ALTERNATIVE III
 Draft General Plan EIR
 City of Winters, California

A.	<u>LAND USE</u> RESIDENTIAL	<u>DEVELOPED</u>		<u>UNDEVELOPED</u>		<u>TOTAL</u> <u>DEV. & UNDEV.</u>
		<u>Acres (ACs)</u> <u>/Units (DUs)</u>	<u>NASP</u> <u>ACs/DUs</u>	<u>Non-NASP</u> <u>ACs/DUs</u>	<u>PAGP Total</u> <u>ACs/DUs</u>	
	LD - Low Density	305/	414/1,648	50/ 250	464/1,898	769/
	PR - Planned Res.	22/	109/ 608	56/ 616	165/1,224	187/
	MD - Medium Density	38/ 1,631 ¹	-/ -	33/ 495	33/ 495	71/ 5,308 ¹
	HD - High Density	6/	-/ -	3/ 60	3/ 60	9/
	Sub-Total	371/ 1,631	523/2,256	142/1,421	665/3,677	1,036/ 5,308
B.	COMMERCIAL	<u>ACs/GSF</u> ²	<u>ACs/GSF</u>	<u>ACs/GSF</u>	<u>ACs/GSF</u>	<u>ACs/GSF</u>
	CC - Central Comm.	33/377	-/ -	2/ 44 ³	2/ 44	35/ 421
	NC - Nbhd Comm.	6/ 69	2/ 44 ³	6/131 ³	8/ 175	14/ 244
	HSC- Hwy.Svc.Comm.	9/103	23/406 ⁴	36/502 ⁵	59/ 908	68/1,011
	Sub-Total	48/549	25/450	44/677	69/1,127	117/1,676
C.	INDUSTRIAL	<u>ACs/GSF</u> ²	<u>ACs/GSF</u>	<u>ACs/GSF</u>	<u>ACs/GSF</u>	<u>ACs/GSF</u>
	LI - Light Ind.	22/252	-/ -	13/ 181 ⁵	13/ 181	35/ 433
	PI - Planned Ind.	-/ -	28/307 ⁶	135/1,882 ⁵	163/2,189	163/2,189
	HI - Heavy Ind.	13/149	-/ -	-/ -	-/ -	13/ 149
	Sub-Total	35/401	28/307	148/2,063	176/2,370	211/2,771
D.	PUBLIC FACILITIES (Parks, Open Space and other)	<u>Acres</u> 112	<u>Acres</u> 311	<u>Acres</u> 10	<u>Acres</u> 321	<u>Acres</u> 433
E.	TOTAL ACRES					
	ALL CATEGORIES	566	887	344	1,231	1,797

* Source: Data and measurements compiled by Duncan & Jones from the Winters General Plan and General Plan Map (1985; updated 1986), the NASP and the PAC Plan; acres are gross, rounded to whole numbers.

¹ It is not feasible to distribute existing units by land use designations due to substantial variation between the designated and actual densities, e.g. the presence of single-family units in areas designated for multiple-family land uses.

² GSF (Gross Square Feet rounded to nearest thousand, assuming single story construction), estimated on basis of 35% site coverage (DGPR figure), and 75% utilization of gross acres (typical net acreage for existing development).

³ GSF based on 100% site utilization of gross acres (small lot), 50% site coverage as employed in the NASP.

⁴ GSF based on 100% site utilization of gross acres (local access established) and 40% site coverage as employed in the NASP, and calculations in Figure 6, which yields greater GSF than arrived at directly from the figure of 23 acres (501 GSF).

⁵ GSF based on 80% site utilization of gross acres (DGPR suggested maximum) and 40% lot coverage as employed in the NASP.

XV. ALTERNATIVES TO THE PROJECT

The NASP defines specific development guidelines for each of 28 development sectors, indicating proposed zoning classifications, minimum lot sizes, lot coverage, setbacks, parking, landscaping and other criteria. Of the 523 acres proposed for residential development, about 21 percent of all residential units would be developed at an average density of 5.6 units per acre, 17 percent at 4.9 units per acre, 51 percent at 3.9 units per acre, and 11 percent at 3.7 units per acre.

The NASP proposes three types of non-residential uses on about 54 acres, including a two-acre site of Neighborhood Commercial uses containing about 44,000 gross square feet (GSF), a 23-acre area for Highway Special Commercial for up to 406,000 GSF, and three separate Planned Industrial areas totalling 28 acres and approximately 307,000 GSF. The NASP proposes a ten percent higher lot coverage (50 percent) for Neighborhood Commercial uses than is defined in the proposed Draft General Plan, and a five percent lower lot coverage (35 percent) for development in areas designated for Planned Industrial, which is roughly equivalent to the Light Industrial and Business/Industrial Park designations in the proposed Draft General Plan.

The NASP Housing Element discusses the population growth which would result from implementation of the NASP. The discussion observes that Winters' population increased by 43 percent between 1980 and 1988, and that Solano County, to the south, experienced substantial population growth during the mid-1980s. The existing General Plan is cited as anticipating a population of approximately 15,000 in the year 2000 (Ref. 33, p. VI-1; Ref. 50, p. II-3a). The NASP proposal for approximately 2,256 new dwelling units is expected to result in a population increase of about 6,300. Taken together with other potential residential developments in the city which are anticipated to yield approximately 700 dwelling units and accommodate about 2,000 persons, the NASP makes the assumption that the total population would increase from the 1988 estimate of 3,790 to between 12,000 and 12,100 in 2000. The NASP projects that residential development would occur rapidly in the initial four or five years of NASP implementation, resulting in an annual population growth of 10 to 15 percent.

Later construction would result in a population growth rate of six to eight percent annually, and the population projection of 15,000 would be reached in the year 2003. For the purpose of this EIR, and on the basis of a determination by the City that such a rapid rate of growth is not feasible or practical, the year 2010 is the assumed timeframe for buildout of the NASP, in combination with the existing General Plan.

The NASP estimates employee density to be an average of 35 persons acre of commercial land, and projects the provision of 886 new jobs in commercial areas at full buildout. The NASP estimates that an average of 24 persons would be employed on each acre of industrial land, resulting in an additional 672 new industrial jobs in the NASP area at full buildout (Ref. 33, page V- 7-9).

The following evaluation of the impacts of Alternative III are in part based on the detailed assessment of the proposed NASP/EGP contained in a previously prepared document, "An Assessment of General Plan Alternatives" (Ref. 22), which is incorporated into this EIR by reference.

1. Planning and Policy Context

a. Pattern of Development

The expansion of urban development outwards from the existing city which would occur with the NASP/EGP Alternative would occur in virtually the same pattern as the proposed Draft General Plan (Alternative I, the Project). The existing General Plan includes land use policies that require supporting infrastructure and services to be developed and financed with the support of the beneficiaries of growth (Ref. 50, pages II-12 to 13). The NASP also proposes among its goals the provision of public services and the extension of infrastructure in advance of, or in coordination with new development, and to provide the financing for development without burdening existing residents. The emphasis of the combined policies and proposals of the NASP/EGP is on the coordinated extension of services and infrastructure, rather than on efficiency and contiguity of urban areas, but the distinction is primarily semantic rather than significant. **The impact on the City's ability to control the pattern of development would not be significant.**

b. Population Increase

The Land Use Diagram of the NASP/EGP Alternative (see **Figure 54**) designates land areas for residential uses which would accommodate an estimated total of 3,367 new dwelling units at various densities which are generally higher than provided for in the proposed DGP. The lower density units, which represent the largest proportion of both residential acreage and total units (a total of 1,898 units could be developed), are projected to have a ratio of 2.8 persons per household (pph) with an expected population of 5,314. A total of 1,224 units are projected for areas designated for medium densities, at an overall average of 7.4 units per acre, with a ratio of 2.3 pph, and an anticipated population of 2,815 persons. Development at higher densities is projected to result in 555 units, with 2.0 pph, and a population of 1,110 persons. The total additional population would amount to 9,239 persons, and combined with the existing city population of 4,639 (U.S. Census, 1990), the NASP/EGP Alternative would result in a population at buildout (assumed to be 2010) of about 14,880.

In relation to the city's current population, the increase represented by Alternative III would represent an annual average growth rate of six percent, about a full percentage point higher than expected to occur with adoption of the Project. As stated above, the NASP/EGP would incorporate policies linking actual growth to the extension of urban infrastructure, and to the development of commercial and industrial land uses which increase economic opportunities in the city. Though the growth rate of Alternative III would be potentially faster than anticipated in the proposed DGP, the ability of the city to provide the urban infrastructure and services for the larger population would not be adversely affected. **The impact of population growth would not be significant.**

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c. Housing Density

The NASP/EGP Alternative does not designate any land areas for residential uses at a density of less than three units per acre, such as the Rural Residential category utilized in the proposed DGP. The lowest density proposed by the NASP is designated on 112 acres indicated for development under R-1-PD 9000 zoning district regulations at an average density of 3.6 units per acre, somewhat higher than the Low Density Residential category of the proposed DGP. This 112-acre area represents about 17 percent of the estimated 665 acres proposed for residential uses under the Alternative III Land Use Diagram, and this could constitute a potential burden on the efficiency of infrastructure and services in the area. However, the comparatively high density character of this designation and the moderate extent of acreage designated, in relation to the densities and acreages defined in the proposed DGP, would place less strain on the city's infrastructure and services. **The impact of the housing density would not be significant.**

d. Housing Mixture and Affordability

The NASP proposal by itself does not designate any of the estimated 887-acre area for residential uses at a density of greater than 6.2 units per acre, and designates 79 percent of the residential acreage for development at five units per acre or less. The NASP proposal indicates that sales prices of homes in the area, in 1988 dollars, would range between \$105,000 and \$175,000, and would primarily provide housing for households with moderate and above-moderate incomes (Ref. 33, page VI-3). No lower-income units are planned within the NASP area, and it is improbable that units built at the proposed densities would be affordable to low or very-low income households without substantial governmental assistance. The NASP would enable the development of all the dwelling units needed for moderate and above-moderate income households, as defined by the Sacramento Area Council of Governments (SACOG) as part of the Regional Housing Needs Plan (Ref. 38).

The non-NASP portion of the NASP/EGP Land Use Diagram would provide for a total of 33 acres of vacant land for residential development at up to 15 units per acre, and three additional acres at a maximum density of 20 units per acre. These 36 acres are projected to result in the development of 555 dwelling units, or about 15 percent of the total units accommodated by the NASP/EGP. The "fair share" housing objectives for Winters, as set by SACOG for the period 1988-1996 defines a need for 87 units affordable to low income households, and 113 affordable to very-low income households, of which an estimated 20 low income units have been built since 1988. The City will need to provide a total of about 180 units in the two combined income categories through 1996. Assuming that one-quarter of the 555 units (at the higher densities) are developed by 1996, and estimates that 60 percent (83 units) of those are affordable to low income households, and 20 percent (28 units) are affordable to very-low income households, the density provisions of the NASP/EGP (non-NASP portion) would result in the development of about 110

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low income dwelling units, including all the units in the low income (not very-low income) category defined in the SACOG housing objectives (this assumes that at least 18 units affordable to low income households were built during 1989 and 1990).

In order to meet the SACOG objectives for 113 units affordable to very-low income households, the City would need to initiate some degree of governmental intervention for the unmet need (85 units), such as the programs defined in the existing General Plan. Solely on the basis of the land use designations of the Alternative III Land Use Diagram, the NASP/EGP would provide an adequate area for residential uses at appropriate densities to enable most of the regional fair share housing needs allocated to Winters to be met in all income categories. Governmental programs would need to target housing production for a relatively small proportion of the total housing need. The Housing Element policies of the existing General Plan incorporated in the NASP/EGP include programs for soliciting state and federal funds for new construction, and for mortgage and rent subsidies for low income households. Effective implementation of these and other policies could enable new housing affordable to very-low income households to be developed. **The NASP/EGP residential land use designations would not have a significant negative impact on the provision of affordable housing.**

e. Urban Form

The organization of land uses along a network of new and existing roadways which would result from implementation of the NASP/EGP would be virtually identical to the proposed Project. Both the Project (Alternative I) and Alternative III use Land Use Diagrams incorporating the same planning area, and both establish a Main Street Loop road along which new development, primarily residential, would occur. Each Alternative (I, II and III) reflects the same general alignment of the Loop road, and the proposed land uses along the Loop road are generally similar, and thus the road does not serve to connect significant concentrations of varied land uses. However, the roadway configuration of the NASP/EGP does not include the designation and planned improvement of County Road 33 as a collector street to serve east-west travel, and thus in Alternative III the Loop road would be essential for that purpose. In addition, the NASP proposes a 20-acre area designated for Planned Industrial uses in the northeast of the city, directly accessible to the Main Street Loop road. This would be likely to create more of a "destination" than does the Land Use Diagram of the proposed DGP. **The impact would not be significant.**

f. Town Character

The NASP/EGP Alternative would have the same effect as the proposed Project, in creating a substantial departure from the existing scale and character of the city as a small, walkable, low-traffic agricultural community. The rate of growth and change identified with Alternative III could be somewhat more disruptive, even on an annual, incremental basis, and result in more

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severe year-to-year growth "spurts" and related traffic increases. However, the NASP proposal incorporates a design concept for exclusive bicycle and pedestrian routes, primarily along the alignment of County Road 33, to provide access between schools, parks and neighborhoods (Ref. 33, page VII-1). Bicycle paths along the Loop road are also incorporated into the circulation plan. These features could moderate the image of development as purely urban, but the overall effect would be to reinforce its suburban qualities. Isolation of residential neighborhoods from the agricultural aspects of the community would result from the proposed elimination of the agricultural school from its existing location, and that isolation would be reinforced with the probable elimination of existing farmhouses and larger lots within the areas proposed to be developed with new residential subdivisions. The NASP expresses as an overall goal promoting a balance of housing, recreation and employment-generating land uses that could contribute to the small town character of Winters.

The existing General Plan's goals and objectives do not express a particularly strong emphasis on the preservation of the agricultural heritage of the city, but does have a general emphasis on community, as represented by an objective to "facilitate social contact within a friendly, cohesive, small town environment," or the overall goal to stress cultural and educational enrichment (Ref. 50, page I-1). These priorities could serve to retain and strengthen many qualities of the city in conjunction with development defined by Alternative III, but evidently would not result in a substantial preservation of the city's agricultural heritage. **The impact on town character would be potentially significant.**

■ Mitigation Measures:

- 15.1** The loss of the agricultural quality of the city could be preserved by maintaining the Agricultural School in its present location, retaining all existing farm houses within the NASP area on relatively large lots, and promoting a farmers' market in the downtown area. **This measure would avoid this significant impact, and is similar to the adopted policy of the proposed Project (Alternative I).**

g. Yolo County General Plan: phasing of development/preservation of agricultural lands

The extension of urban development as defined by Alternative III, the NASP/EGP, would be confined within the adopted Yolo County Sphere of Influence, but it does represent more emphasis on outward growth onto agricultural lands than infill growth on land which may already, or more efficiently, be served by infrastructure and services. The NASP defines a phasing plan in numerical terms, though not in spatial terms, and would rely on the existing General Plan policies which would be incorporated into the NASP/EGP, stressing phased growth, infill development and the logical expansion of infrastructure (Ref. 33, page II-11). The Conservation, Open Space and Recreation Element of the existing General Plan also incorporates policies emphasizing maintenance of the agricultural economy, infill and the prevention of "leapfrog" conversion of agricultural land.

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The NASP/EGP would result in the conversion of agricultural land, which is a significant impact in itself, considered in section 11 below, but the phasing of development would be managed according to the procedures that are consistent with the land use goals of the Yolo County General Plan.

h. Yolo County General Plan: Scenic/Open Space/Trail Corridors

The NASP portion of the NASP/EGP proposes various types of pedestrian and bicycle paths, as well as new parks and the central detention pond common to the Project and most of the Alternatives, and the pedestrian/bicycle route along the County Road 33 alignment could be defined as such a corridor, although it is probably too narrow to qualify as significant open space. The NASP area incorporates a portion of the Highway 128 Scenic Highway corridor, and designates an approximately 1,000 foot section for a bicycle/pedestrian route. The remainder of the NASP area adjacent to the corridor, also a distance of about 1,000 feet, is proposed for highway service commercial uses which would not be compatible with an active recreation corridor. However, the ideal location of a bicycle or walking trail in this area may be directly alongside Putah Creek, which the non-NASP portion of the existing General Plan Land Use Diagram currently makes provision. The NASP/EGP Alternative incorporates the existing General Plan policies for recreational open spaces and corridors and the conservation of natural and scenic resources. **The NASP/EGP would not have a significant impact on the promotion of a scenic open space corridor for pedestrians and bicyclists.**

2. **Traffic and Circulation**

The NASP/EGP is distinguished in land use terms from the proposed Project (Alternative I) primarily by the designation of about 60 more acres of residential land uses, primarily in the northwestern portion of the new development areas, where about twice as many dwelling units are proposed in the NASP area as in the same area for the Project. About 200 fewer units than those expected from implementation of the Project, however, are proposed by the NASP in the eastern area of the city, north of Grant Street. Other notable differences include the NASP proposal for industrial uses along the Main Street Loop road, which was itself originally proposed by the NASP, and the absence of a connecting route from east to west along the County Road 33 alignment. In terms of employment, the NASP/EGP is estimated to generate moderately fewer jobs than the proposed Draft General Plan (about 900 fewer), but the majority of the industrial (employment-generating) uses in both Alternatives is located adjacent to I-505, which requires access from Grant Avenue along what is termed the "Industrial Access Road."

At NASP/EGP buildout, 71,400 trips per day were forecast to be generated citywide. This represents an increase of 45,800 trips (180 percent) over the 25,600 trips which was the estimated existing trip generation in 1990. Of the 45,800 added trips, 25,400 (56 percent) were generated by housing and employment-generating uses in the NASP portion of the NASP/EGP.

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The forecast average daily traffic for the NASP/EGP is given in **Figure 56**, showing a nearly three-fold increase in traffic on Grant Avenue, particularly between Railroad Street and the Industrial Access Road. Forecast daily volumes on Grant Avenue drop substantially west of Railroad, but are still between two and three times the existing volumes during the peak month. On Railroad Street, daily traffic volumes north of Grant Avenue were forecast to double, while traffic south of Grant Avenue would increase only by about 24 percent.

Although the NASP proposed the addition of the Main Street Loop road, new local and collector streets and minor modifications to the existing street system, no improvements to Grant Avenue were identified, including both widening and signals, or additional four-way stop signs. The existing General Plan designates Grant Avenue as an arterial roadway with two lanes of traffic in each direction, and a median to accommodate left-turn lanes, it does not provide an effective means for making the necessary improvements.

a. Arterial Streets

As a result, for all two-way stop intersections on Grant Avenue, left-turn movements and some right-turn movements from sidestreet approaches were calculated to be LOS F. Left turns from Grant Avenue eastbound and westbound to the Main Street Loop (East) were calculated to be E and D respectively; without storage lanes, vehicles waiting to execute these turns would impede through-traffic movements. For some of these turning movements, volume would greatly exceed capacity. This would result in intolerable delays and long queues of vehicles during the peak hour. The high volume of turns from these approaches during the PM peak hour reflects a large number of employees leaving work during the PM peak hour, and traveling towards Winters. PM peak hour volumes would satisfy Caltrans' peak hour volume warrants. The projected traffic volumes on Grant, west of Railroad, and the limited right-of-way, would result in severe traffic conditions. **This specific condition constitutes a significant unmitigable impact. The NASP/EGP would result in significant impacts on overall traffic congestion of arterial streets in the city.**

b. I-505 Interchange

At the Grant Avenue intersections with the I-505 ramps, forecast increases in traffic were not as great as at intersections in town, though some selected turning movements were forecast to deteriorate substantially at the interchange. This reflects the provision of more employment and local serving commercial land uses within Winters, which will reduce the amount of trips leaving Winters for work, shopping, and other trip purposes. At both interchanges, buildout traffic volumes would satisfy Caltrans peak hour traffic signal warrants. **The impact on traffic congestion of the I-505 ramp intersections would be significant.**

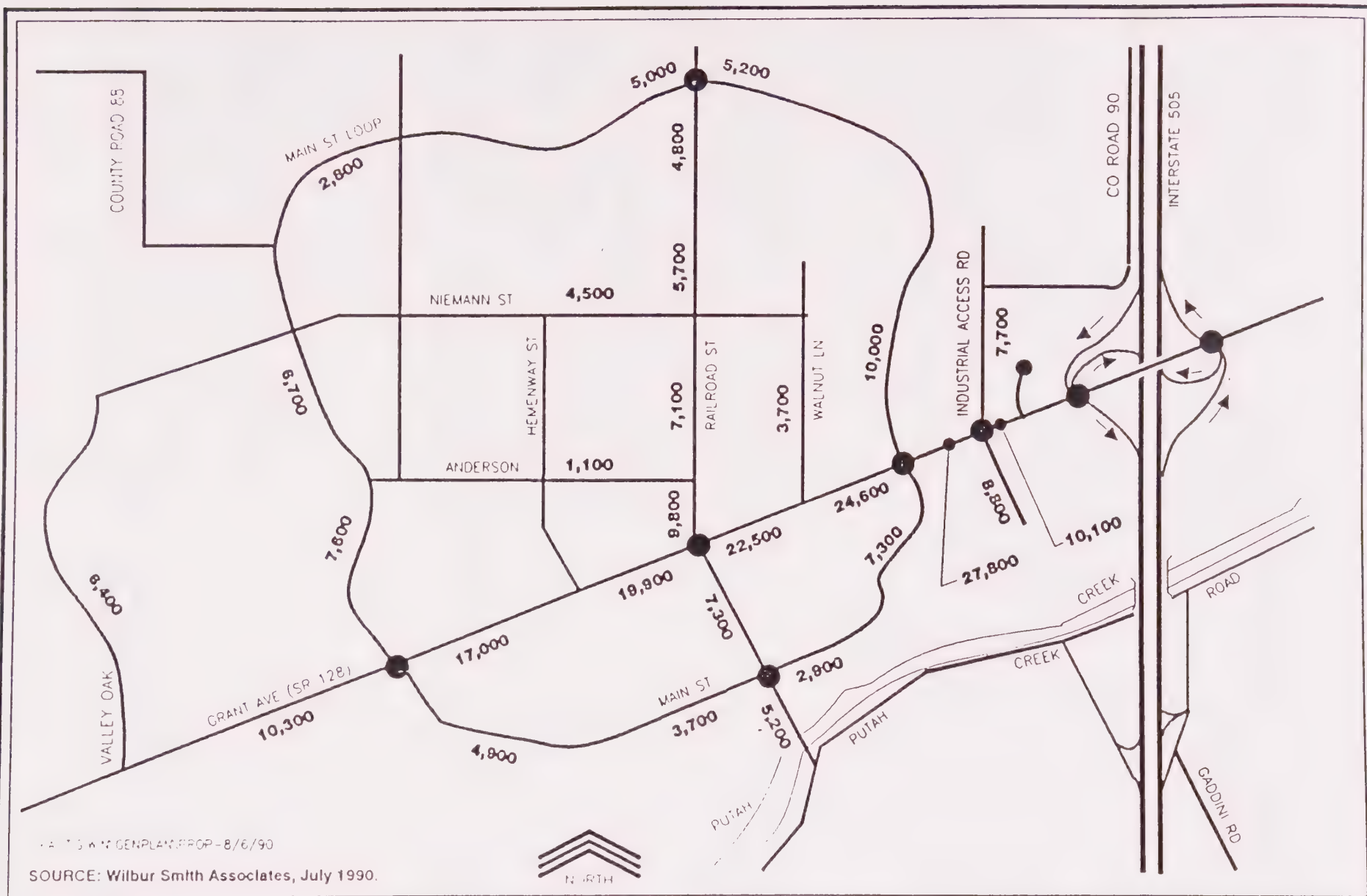


Figure 56
FORECAST AVERAGE DAILY TRAFFIC: ALTERNATIVE III
 Draft General Plan EIR
 City of Winters, California



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c. Collector Streets

The NASP/EGP would have adverse impacts on selected residential area local collectors, as well, such as at Niemann Street, and Walnut Lane, where daily traffic was forecast to be in excess of the 2,400-3,000 vehicles per day considered to be the maximum acceptable volumes for residential collector streets. The combination of traffic increases on collector streets and on the arterials will result in other forms of traffic congestion, particularly related to left turns between the collector and arterial streets. Besides the adverse impact on existing residents, this problem would also serve to reduce the effectiveness of existing residential collector streets as through routes for future traffic. **The additional delays in accessing the major street system from existing residential streets would be a significant impact.**

d. Pedestrian and Bicyclist Access

The NASP/EGP includes combined bike and pedestrian paths separate from vehicle traffic lanes along both sides of the Main Street Loop, and along one side of Railroad Street, as well as within a network of parks and other corridors. However, the traffic increases on Grant Avenue and Railroad Street will increase the difficulty and danger of pedestrian and bicycle crossings of these major streets. Although there would clearly be a need for a controlled crossing on Grant between Railroad and the Main Street Loop (West), especially since the high school fronts on Grant in this segment, a signal could cause severe traffic congestion. **This specific condition constitutes a significant unmitigable impact of the NASP/EGP. The anticipated traffic congestion would have a significant impact on the safety of pedestrians and bicyclists.**

■ Mitigation Measures:

A program of major improvements to Winter's major street system is necessary to reduce delays and operational difficulties at major intersections on Grant Avenue and Railroad Street, including the following improvements :

- 15.2A** Grant Avenue, between Railroad Street and the I-505 southbound off-ramps, should be widened to four lanes plus median (two lanes in each direction), except for the section from Railroad Street west to Cemetery Drive, which does not have sufficient right-of-way for the median.
- 15.2B** Traffic signals and intersection improvements, including turning lanes, should be provided at the following intersections of Grant Avenue: Main Street Loop (West), Railroad Street, Main Street Loop (East), Industrial Access Road, and both off-ramps of I-505. Traffic signals should also be provided at the intersections of Railroad Street with Main Street (in the CBD), and with Main Street Loop (North).

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15.2C New streets should be included in the NASP/EGP to connect from the Main Street Loop Road to the commercial and industrial areas adjacent to I-505. These streets would provide routes from the primary residential areas to the primary employment areas, without the need to travel on Grant Avenue.

15.2D At the Grant Avenue intersections with Railroad Street and both of the Main Street Loop intersections, special pedestrian and bicycle treatments would be especially important, with ramps, walk lights, crossing lanes, and median areas for pedestrians who fail to cross in a single signal phase.

The above measures would reduce the traffic impacts of the NASP/EGP, but would not avoid two significant impacts related to the constraining right-of-way between Railroad and Cemetery Drive: 1) peak-hour traffic; and 2) a need for a pedestrian/bicyclist crossing. The other impacts would be avoided. Measures 15.2A through 15.2C have been incorporated into the proposed Project (Circulation Master Plan).

3. Infrastructure Services and Facilities

a. Water Supply

The Winters North Area Specific Plan proposed the development of four water wells constructed in locations in accordance with the City's Master Water Plan as defined in 1988 when the NASP was prepared. Each well would be constructed for a design capacity of 1,500 gallons per minute (gpm), or up to 2.16 million gallons per day (mgd). A fifth new water well is proposed at the detention lake park to provide water for the lake, making up for water lost through evaporation. Each well is intended to provide service for between 500 and 600 dwelling units, and would be installed with a variable frequency pump to ensure uniform water pressure during peak and off-peak hours. The water distribution system will consist of pipelines in interconnected loops to enable individual segments to be shut down for maintenance and repair without interrupting service to a larger area. The water wells and distribution system (except for supply lines on private property) would be owned and maintained by the City of Winters (Ref. 33, page X-2 to 4).

The water supply needs associated with the NASP are estimated to be 2.58 million gallons per day (mgd), based on the same water demand assumptions for land uses used in Chapter V of this EIR. Total new demand for the NASP and non-NASP land areas would be 3.78 mgd. Demand with the total population under the NASP/EGP would be 5.24 mgd. The NASP proposal, however, does not provide the means for upgrading the wells, tanks, distribution lines and other necessary equipment in the non-NASP portions of the NASP/EGP, and the existing General Plan does not propose upgrading the existing facilities to meet peak hour and peak season demand. **The potential impact on existing water facilities would be significant.**

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Although there is no documented indication of a risk of depletion of the groundwater supply as a result of development as defined by Alternative III, neither the NASP or the existing General Plan provide water conservation measures, such as those defined by the Project (Urban Water Management Plan), and thus the potential for a relatively increased rate of regional groundwater depletion would exist with the NASP/EGP. More importantly, the NASP/EGP does not adequately recognize the statewide and regional importance of water conservation, and the potential for water quality degradation from a depleted water table. **The potential impact on groundwater depletion would be significant.**

Financing of public improvements would be accomplished by formation of an assessment district, or a Mello-Roos District. Development fees are used by the City to improve existing facilities but would not accumulate fast enough to finance essential improvements required at the outset of development, which makes the Mello-Roos District essential to financing the installation of water distribution lines in the new development areas. The financing plan of the NASP, combined with the existing General Plan policies limiting development to the city's ability to provide infrastructure, such as water supply and a distribution network, and to obtain financial assistance from benefitting developers, would avoid an impact on the financial aspects of extending water supply infrastructure. **The impact on the financing of water systems infrastructure would not be significant.**

■ Mitigation Measures:

- 15.3A** Water conservation measures to reduce overall water demand shall be promulgated by the City and incorporated into the NASP, to promote: low-flow toilets, shower heads and faucets; drought-resistant plant species for private, commercial and public landscaping needs; and limited use of fountains, ponds and other water-related landscaping.
- 15.3B** Development standards shall promote on-site detention basins and open space, to retain as much on-site infiltration as possible of rainfall and local run-off. In addition, standards should promote the use of reclaimed wastewater for landscape irrigation.
- 15.3C** The City shall require the NASP and other major land use proposals to participate in a study of the the reliability of groundwater for long-term yields for the city's needs, in the context of avoiding impacts on other needs for groundwater in the surrounding area and region.

These measures would avoid the identified significant impacts. The water conservation measures are equivalent to the proposed policies of the proposed Project (Alternative I)..

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b. Wastewater System

New development within the combined NASP and non-NASP areas is expected to generate sewage at a rate of 1.3 mgd. This estimate is based on an ultimate buildout population in Winters of about 15,000 and a current population of approximately 4,640 (U.S. Census), with a per capita sewage generation rate of 125 gpd. Approximately 115 more acres of spray field would be required to accommodate this additional population. Total sewage generated with the total population under the NASP/EGP Alternative would be almost 1.9 mgd, requiring nearly the same amount of new main sewer lines, lift stations, and replacement lines. The NASP proposes that a new sewage collection point be developed in the NASP area (Ref. 33, page III-24). Sewage generated within the NASP area would flow by gravity to the new collection point and be pumped into the 14-inch force main leading to the new treatment plant. Collection lines would be placed underground within street rights-of-way or in separate easements.

The proposed NASP does not include means for upgrading the existing wastewater treatment plant, or for repairing or replacing deteriorated sewer mains in non-NASP areas of the city. The existing General Plan emphasizes extension of new sewer lines, but also directs the City to repair and replace older lines as needed (Ref. 50, page II-18). However, the existing General Plan, as well as the NASP, do not provide plans or policies to address the inadequacies of the treatment plant. **The impact on the city's wastewater treatment plant and other facilities would be significant.**

■ Mitigation Measures:

15.4A Individual project developers in the NASP/EGP areas should contribute funds through an assessment district or other mechanism for improvements to the City's sewage treatment system and collection system to accommodate future growth.

15.4B Wastewater flow should be calculated more accurately in connection with detailed planning for treatment facilities. The effects of rainfall and evaporation on holding ponds should be accounted for to assess disposal requirements accurately.

These measures would avoid the identified significant impacts. The proposed Project includes a financing plan to collect and distribute funds for needed improvements.

c. Storm Drainage System

The NASP originally proposed (in 1988) many aspects of the drainage system which are utilized in the Storm Drainage Master Plan (Ref. 18) proposed as part of the Project (Alternative I), such

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as the central Winters Detention Pond, an underground storm drain conduit from the lake to an outfall to Putah Creek, the rerouting of Willow Canal around the development area, and a Northern Stormwater Diversion channel for drainage of areas outside the NASP area into Moody Slough. These proposals were based on a study (Ref. 19) which also recommended the continued use of Moody Slough for drainage of areas to the north of the NASP and outside of the City's Sphere of Influence, and no additional detention facility for this purpose, in contrast to the Northern Stormwater Pond proposed in the Storm Drainage Master Plan that is part of the proposed Project. The configuration of the Winters Detention Pond drainage conduit to the outfall at Putah Creek is generally similar to the proposed Storm Drainage Master Plan, but does not include the second conduit and outfall to Putah Creek from the Northern Stormwater Diversion.

The NASP area, and a portion of the non-NASP areas, also include some land areas outside of the Moody Slough watershed, in the Dry Creek watershed. Storm waters from this area would be conveyed along a new 30-inch pipe drainage conduit to the Cemetery Diversion drain line to Dry Creek. Stormwater runoff to this drainage is estimated to increase from 9 cubic feet per second (cfs) to 73 cfs for a 10-year storm, which would not represent a significant impact on Dry Creek drainage. The NASP/EGP Alternative would require the replacement and installation of additional storm drain lines in existing and new areas outside of the NASP area. Other new development would result in an increase in drainage to Putah Creek, estimated for a 10-year storm at a rate of 380 cfs, which Putah Creek can accommodate without being significantly affected.

A proposed system of storm drains and catch basins in the NASP area would accommodate the increased runoff rate which the new development would cause during a 10-year flood event, and convey it to the detention lake. The storm drains in the NASP area would be sized to accommodate the flow from the undeveloped 550-acre watershed upstream from the NASP area and northwest of the proposed golf course. Runoff from the golf course is assumed to be detained on-site.

The analysis of the Northern Stormwater Diversion as proposed by the NASP, which is discussed in broader detail in a previous document, "An Assessment of General Plan Alternatives" (Ref. 22, pages 167-173), incorporated into this Draft EIR by reference, indicates that overland flows north of the NASP will overburden the downstream Moody Slough system for storms of greater than a 25-year runoff. Properties immediately to the east and west of Interstate 505 adjacent to Moody Slough could be significantly affected. **The impact on drainage-capacity of surrounding lands would be significant.**

Similar to the proposed improvements of Alternative I (the Project), the NASP/EGP would not result in a significant increase in stormwater drainage to Putah Creek, because of Putah Creek's greater capacity to contain flood waters within its banks.

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The previous assessment of the NASP proposals for the detention lake and other improvements raised questions about the ability of the lake to provide enough capacity for the 100-year flood event, particularly if the Northern Stormwater Diversion is not adequate to accommodate the design storm. Because of the high cost of storm drainage systems to accommodate a 100-year flood, the NASP proposed to design all drainage pipes and outfalls to Putah Creek to accommodate only a 10-year storm. Flows exceeding the capacity of storm drains were assumed to be carried temporarily by streets, permitting sheet flooding to a depth of up to one foot, because finished floors would be placed at a height of at least one foot above the 100-year flood. This discrepancy would be reconciled in the design standards of residences to be built in the NASP. However, it would not necessarily eliminate flooding impacts to residences in the existing urban area, notably where houses are elevated less than one foot and where runoff would be conveyed by drainage lines to Putah Creek. Low spots in the roads of the existing drainage system would be prone to continued flooding. **The inadequate provision of drainage facilities for the entire city is a significant impact.**

■ Mitigation Measures:

15.5A The Northern Stormwater Diversion should be modified to include a retention or detention facility in order to avoid any net increase in runoff to Moody Slough below the junction with the channel, such as proposed by the Project (Storm Drainage Master Plan). In addition, the impacts of the NASP area development should be minimized through upgrading the siphon with Willow Slough and the culverts at I-505. Flooding east and west of I-505 should also be reduced by removal of vegetation and sediment that is presently choking these culverts.

15.5B Design requirements for those portions of the new development within the 100-year flood plain (including both NASP and non-NASP areas of the NASP/EGP) should include a minimum one-foot building elevation above the design flood. The 100-year recurrence interval standards, which are applied to the design of the lake, should be reconciled with 10-year criteria applied to the design of the storm lines and outfalls so as to prevent the prospect of increased flooding in older portions of the City. Storm drains with increased capacity should replace some of the proposed lines especially in the southern and western portions of Winters in order to accommodate the 100-year storm discharge.

These measures would avoid the identified significant impacts. A Northern Stormwater Detention Pond which avoids downstream impacts is included in the Project (Alternative I).

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d. Solid Waste

The NASP/EGP would result in the addition of an estimated 9,400 persons to the city's population, which could generate, on the basis of 1.65 tons per person per year, an additional 15,500 tons of solid waste. The existing General Plan does not include any requirements for waste reduction, and thus the NASP/EGP would contribute to the state and regional cumulative impact on waste handling facilities. **The impact on solid waste handling capacity would be a significant, cumulative impact.**

■ Mitigation Measures

15.6 The preparation and adoption of a waste reduction ordinance would be necessary, such as defined as part of the Project's policies, to meet state requirements.

This measure, if implemented, would avoid the identified significant impact.

4. Emergency Facilities/Services

The NASP proposal included a police/fire facility in the Land Use Diagram in nearly the same location as proposed in the proposed DGP Land Use Diagram, but about 1,000 feet west of Railroad Avenue on the Main Street Loop road. This site would still be centered in the northern area, but without close access to Railroad Avenue, could increase emergency response time to certain areas of the city. Maximum response time for a Fire District emergency, however, would be very similar to the time from the site proposed in the DGP, or between two and four minutes to new development areas.

In order for the Police Department to serve the total population of 15,000 persons, on the basis of 1.8 officers per 1,000 residents, would need a total of 27 officers, and additional support staff and four to five Seargents. The NASP projects that a combination of revenue sources for the City, including its share of the ad valorem tax, sales taxes and other revenue would be sufficient to add approximately ten officers to the Police Department (Ref. 33, pages 30 to 33).

The NASP expresses a goal to provide safe and efficient public services such as police and fire protection, though it does not propose any form of special financing of the new station or equipment, except to indicate that revenue from ad valorem taxes, upon which the Fire District relies on, will be at least tripled at the buildout of the NASP (Ref. 33, pages XI-31 to 32). The existing General Plan's land use policies direct the City to ensure that development requiring new services, such as fire protection, contributes to the cost of providing those services. Though the analysis provided below under the heading of fiscal considerations indicates that new development, including both commercial and residential uses, is not anticipated to be able to provide for

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the cost of services such as fire and police, the NASP/EGP would not result in any other type of impact on these services. **The NASP/EGP provides a site for a Police/Fire station, and would result in increased revenue to the Winters Fire District, and to the City Police Department, and would not result in a significant impact on their ability to physically provide their services.**

5. Other Community Services

a. Parks and Recreation

The NASP/EGP would result in an estimated 10,400 new residents in Winters. On the basis of 3 acres per 1,000 residents, and a total population of about 15,000, the city would need 45 acres of parkland. The NASP proposal designates about 20 acres of parkland around the 24 acre Winters Detention Pond/Lake, which would include active boating activities, and a five-acre "School Park" with playfields and baseball diamonds for joint school-public use. Neighborhood parks and mini-parks, combined with a bike and pedestrian pathway network as a linear park, would add about 12 acres for a total of about 42 acres (not including the lake) within the NASP area. A golf course is also proposed in the NASP, but it would not qualify as park space for the city's objectives for a ratio of 3 acres per 1,000 residents, which would be achieved in combination with the existing five acres of parkland. **The NASP/EGP would provide sufficient parkland acreage and avoid a significant impact.**

b. Schools

The NASP/EGP is projected to result in a total of about 3,677 new dwelling units, including 2,256 units in the NASP area. On the basis of current student generation rates, the NASP would yield 1,015 kindergarten through fifth-graders, 519 middle school students (grades 6-8), and 677 high school students (9-12). The NASP proposal includes one large site designated for new elementary and middle schools, and assumes the conversion of the existing middle school to an elementary school, as planned by the Winters Joint Unified School District. The NASP also assumes higher student populations at the middle school (900) and elementary schools (600-700) than the District currently considers ideal. According to the NASP proposal, at buildout the District would have three elementary schools, one middle school, and an enlarged high school at its existing site.

However, these schools would not accommodate growth elsewhere in the city, which is projected under the NASP/EGP Alternative to yield about 1,420 additional dwelling units. A total of 5,308 dwelling units are projected to exist in the city at buildout of the NASP/EGP, which would generate 2,388 K-5 students, 1,220 middle school students, and 1,592 high school students. Using the District's current school capacity standards (upper range), four elementary (K-5) schools

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would accommodate about 92 percent of the NASP/EGP buildout, each with a capacity for 550 students. One middle school for 900 students, and a 1,200 student high school would each serve through about 75 percent of the projected residential development. Development in excess of these percentages would require additional facilities. The existing General Plan does not designate any site for an elementary school outside of the NASP area, which could lead to difficulty in obtaining a site for that purpose when a fourth elementary school is needed. The configuration of the schools as defined by the NASP/EGP concentrates the elementary schools too close together, unnecessarily increasing the distance between some neighborhoods and schools. Additional schools, such as the middle and high schools, which would be needed in the later stages of development, could be located outside of the current planning area in anticipation of growth in those areas which would develop after the end of the current planning period (2010). **The NASP/EGP does not provide adequate sites for school facilities, which would be a significant impact.**

The agricultural school would be relocated outside the NASP area, although the NASP makes no proposals for potential sites. The NASP proposes that a complete bike and pedestrian pathway network will be developed, together with sidewalks as required by the site planning process, which would be linked to the new school area. The proposed school facilities would be financed by a combination of development fees and Mello-Roos bonds. **The elimination of the Agricultural School, without provision for a new site, would result in a significant impact on schools in Winters.**

■ Mitigation Measures

15.7A The NASP/EGP Land Use Diagram would need to be revised to show one new elementary school site, located to the east. A long-term growth study should be prepared by the City to determine where additional growth will occur, to assist in defining school sites to accommodate the final buildout of the NASP/EGP and the initial development of other areas.

15.7B A replacement site for the Agricultural School would need to be identified.

These measures would avoid the identified significant impacts.

c. Public Utilities

The impacts of the NASP/EGP on the provision of gas, electric and telephone services would be virtually the same as the proposed Project, and the process of obtaining these services would not be significantly affected.

6. Fiscal/Public Financing Considerations

The NASP/EGP Alternative would generate substantial revenue for the City, but require still greater expenditures for infrastructure improvements and services, and would result in a net negative fiscal balance of about \$755,000. This negative balance is common to both Alternatives I and II, but is the lowest negative balance among all the Alternatives. The NASP has proposed a Mello-Roos District, which would finance improvements and new construction of the major public facilities related to the plan, including roads, utilities, the lake/detention pond, new parks and schools. The Mello-Roos District, however, would not contribute to the provision of ongoing City services from the General Fund. **The effect on the City's general fund balance would be substantial and adverse.**

The cost of providing 24-hour fire protection service, as assumed for the Project (Alternative I) would not vary among Alternatives because a new station is required regardless of the relatively minor differences in population between the Alternatives.

■ Mitigation Measures:

- 15.8** The NASP/EGP would require the way in which the Mello-Roos District is defined to be revised, or would require the imposition of other parcel taxes, in order to finance a broader range of services and infrastructure improvements.

This measure, if implemented, would avoid the identified significant impact.

7. Biotic Considerations

As with the Project, this alternative involve the conversion of existing habitat to urban and suburban uses, including the area encompassed by the NASP. The NASP includes many of the specific improvements contained in the Project, including new parks, a central lake for use as a public amenity and flood-control facility, substantial residential and other development, and other improvements. Existing habitat would be eliminated as development proceeds, and important biotic features may be adversely affected unless adequate mitigation is provided to protect resources as individual development applications are reviewed and approved by the City. Mitigation measures recommended to alleviate potential impacts of the Project would also apply to this alternative, but would not eliminate the regional impacts on biological resources. **The overall, cumulative impact would be significant.**

■ Mitigation Measures:

- 15.9 The NASP/EGP would require a mitigation program identical to the program defined for the proposed Project, including the development of an agricultural preservation trust fund for management of lands that would reduce the impacts on Swainson's Hawk and other species of plants and animals.

This measure would reduce the identified significant impact.

8. **Geotechnical/Geologic/Soils Considerations**

The development of the old Winters landfill into a golf course as proposed by the NASP would result in irrigation of the site, which could potentially increase the leaching of toxins and contaminants from the existing waste material into the groundwater. Any such increase could have significant, adverse impacts on the quality of drinking water in the area, with potential related health effects. The NASP proposal was contingent upon conclusive indications that any residual contaminants could be isolated from groundwater supplies, and done so on a cost-effective basis (Ref. 33, page XI-18). At this stage, additional monitoring, exploratory borings and analysis are required to make a determination as to the character of the potential contaminants, the subsurface geological structures and their ability to isolate contaminants from downgradient groundwater, and the potential cost of mitigating any significant risk of water quality impacts (Ref. 24, page 6-1). **Because of the incomplete studies on this subject, and the contingency of the NASP upon such studies, the impact is presently defined as not significant.**

The urban development which would result under the NASP/EGP Alternative would increase Winters' population by about 20 percent over the population projected for the proposed Project, increasing the numbers of people exposed to earthquake hazards. However, the existing General Plan incorporates policies, which if effectively implemented, would require the adoption and enforcement of the most current and appropriate editions of the Uniform Building Code, and actively promote the structural rehabilitation of older buildings in the city. In addition, a contingency plan for emergency services would be prepared and periodically updated (Ref. 50, page VI-11). **The potential impact of unsafe seismic conditions would be avoided.**

9. **Noise**

The NASP/EGP Alternative would result in traffic congestion, and related noise increases which would have an adverse impact along several city streets, and is acoustically less tolerable than the proposed Project. In comparison, noise levels would be higher by as much as 10 dB on portions of Main Street, and by as much as 3 dB on portions of Grant Avenue. Noise levels along Anderson Avenue, however, would be lower by 3 dB, and the noise on other roadways would be

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generally the same as with traffic under the proposed Project. The existing General Plan includes a noise element with noise compatibility standards, construction standards, and policies preventing residential development within high noise contours. However, the Land Use Diagram of the NASP/EGP designates a number of residential areas along Grant Avenue, and neither the NASP or the existing General Plan suggest the use of soundwalls in these areas. **The impact on the noise environment would be significant.**

■ Mitigation Measures:

The NASP/EGP would require several of the noise mitigation measures defined for the proposed Project, including:

- 15.10A** The land use designations need to be altered to avoid residential development adjacent to Grant Avenue, or to institute the use of soundwalls or open space buffer zones.
- 15.10B** Acoustical assessments should be prepared for each major residential project proposed within a high noise contour.

These measures would avoid the identified significant impact.

10. Air Quality

The nature and extent of urban development under the NASP/EGP would result in adverse construction and traffic-generated air quality impacts similar to the proposed Project, but because of the larger population projected for the NASP/EGP, the numbers of people adversely affected would be greater. The NASP/EGP would also result in moderately high densities at the perimeter of the expansion area, which could result in adverse impacts on residents from ongoing agricultural activities, such as pesticide spraying, waste burning and odors. Local air quality impacts, such as carbon monoxide, would be proportional to the population increase, or about 20 percent more.

■ Mitigation Measures:

The NASP/EGP would require the same air quality mitigation measures defined for the proposed Project, including:

- 15.11A** Construction site standards and procedures need to be established.
- 15.11B** Buffer zones and standards for their design should be designated between new residential development areas and ongoing agricultural activities.

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- 15.11C** Individual development projects with substantial trip generation rates (i.e., over 200 trips per day) should adopt air quality mitigation plans for trip reduction, related to site planning and transit alternatives.

These measures would reduce the identified impacts, but would not avoid a significant overall, local and regional impact, which is an unavoidable adverse effect of development as defined by this Alternative.

11. Other Considerations

a. Visual Considerations

The NASP/EGP would result in the same general character of visual impacts as the proposed Project, including the loss of views, the conversion of land from an rural to a suburban, bedroom community appearance, and replacement of mountain and rural views from Grant Avenue at I-505 with commercial development. The NASP proposal for commercial development along Grant Avenue west of I-505 would impact negatively on its Scenic Highway designation. The existing General Plan has a mild program of upgrading the physical appearance of the downtown area, and does not propose the removal of existing industrial activities from the downtown. **The visual impacts created by Alternative III would be significant.**

■ Mitigation Measures:

- 15.12A** The same design guidelines as defined for the proposed Project should be adopted, to have a very high standard of landscaping and site planning, and to use substantial buffer zones or setbacks from the roadway to alleviate the concentration of commercial activity which is proposed.

- 15.12B** In order to reinforce the historic and rural character of Winters to the maximum extent, preservation of the older farmhouses and portions of the orchards should be carried out whenever possible and incorporated into the site plans of individual development proposals.

These measures would avoid the identified significant impact.

b. Light and Glare

The NASP/EGP would have the same impacts as the proposed Project, including the regional, cumulative loss of night sky clarity. The Land Use Diagram designations increase the potential for commercial and industrial lighting which would be disruptive to residential areas, due to the number of instances in which the two uses would be relatively close to one another. **The impact on night sky clarity, and potentially on residential night time glare, would be significant.**

■ Mitigation Measures:

- 15.13** The NASP/EGP would require the adoption of the same policies as the proposed Project, to provide a buffer between residential uses and commercial development, and to review all proposed development to minimize light spillage, unnecessary glare and degradation of night sky clarity.

This measure would avoid significant commercial and industrial glare effects on residential areas, but would not prevent the unavoidable cumulative impact on regional loss of night sky clarity.

c. Conversion of Agricultural Land

The NASP/EGP Alternative would result in identical, adverse and unmitigable impacts as the proposed Project, because an equivalent amount of agricultural land area is proposed for urban development. The area in the northwest of the city which is not included in the NASP/EGP Land Use Diagram is roughly the same amount of land in the Open Space Preserve defined in the Land Use Diagram of the Project. **The conversion of agricultural land to urban uses would have a significant, cumulative, regional environmental impact.**

The NASP proposes residential development adjacent to active agricultural land at moderately high densities, similar to Alternative II, the Modified Draft General Plan, which would result in a higher probability of conflicts between the two uses than with the land use configuration of the proposed Project. **The potential for urban-agricultural conflicts would be a significant impact on the continued viability of surrounding farmlands.**

■ Mitigation Measures

- 15.14A** The same program of mitigations to slow the rate of loss of agricultural land as identified for the Project would be applicable to the NASP/EGP, including prioritizing land development proposals according to soil quality ("save the best for last"), and adopting a farmland protection program.
- 15.14B** Buffers should be established such as setbacks, berms, greenbelts and open-space areas to separate farmland from urban uses.

These measures could have an important contribution to slowing the rate of conversion of agricultural land to urban uses, but would not fully avoid the significant local and cumulative impact.

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d. Cultural Resources/Archaeology

The risk of disturbing sensitive archaeological sites would be very similar to that under the Project, which is limited, but not unforeseen. Neither the NASP or the existing General Plan provide policies addressing the need to protect archaeological sites through consultation with specialists in the field, or initiating other protective procedures. **The potential for destruction or over-covering of important archaeological sites in the Winters area is a significant impact.**

The EGP contains an Historic Preservation Element concerned with all aspects of preservation and rehabilitation, and is generally similar to equivalent policies in the proposed Draft General Plan (the Project). **The potential impact on historic architectural and related resources would not be significant.**

B. ALTERNATIVE IV - NO PROJECT/EXISTING GENERAL PLAN

Alternative IV reflects the No-Project Alternative, as defined by development in the Winters area in direct accordance with the land use designations and planning provisions of the existing General Plan (EGP), adopted in 1985 and last updated in 1986. The EGP uses a planning period through the year 2000, and originally assumed a Winters population of about 15,000 would emerge within that period, at an overall average density of about 6.2 units per net acre. For the purpose of comparing the EGP with the Project and the other alternatives, buildout of the proposed EGP land uses is conceptually tied to the same planning horizon as the Project, the year 2010. The discussion that follows is concerned with the identification of the potential impact of development occurring within the parameters defined by the EGP.

The existing General Plan includes all the elements mandated by state law, such as land use, housing and circulation, and also incorporates four discretionary elements concerning historic preservation, scenic highways, recreation, and seismic safety. Five overall groups of goals and objectives serve as the basic framework of the EGP, summarized below:

- ◆ Social, Cultural and Institutional Development - to promote lifestyle choices, cultural and educational enrichment, and planning for institutional needs.
- ◆ Economic Development - to expand and diversify economic and employment opportunities within the city.
- ◆ Housing and Community Development - to increase housing choices, upgrade the physical and functional conditions of the community, and provide for new development which serves both individual and community needs with the greatest benefit and least public cost.

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- ◆ Environment, Open Space and Aesthetic Preservation - to preserve Winters' identity, and strengthen the appearance of the community and its gateways to itself and Lake Berryessa through urban design, architecture and landscaping.
- ◆ Government and Controls - to optimize the function of local government in controlling growth and development.

The Land Use Element emphasizes planned management to encourage growth that can finance extensions of infrastructure, residential development that is balanced with new local economic growth (commercial and industrial development), restricting growth to within the city limits or adopted Sphere of Influence, and a high level of design quality. Implementation measures linked to the Land Use Element address the development of a Capital Improvement Program (CIP), development fees, revision of zoning and development regulations, the use of Federal, State and other governmental funds and programs to encourage economic development, and the needed extensions of the City's water, sewer and storm drainage facilities.

The EGP Land Use designations are summarized below:

■ Residential

- ◆ LD - Low Density (one to five units per net acre), to provide for detached single-family homes on lots no smaller than 6,000 square feet.
- ◆ PR - Planned Residential (six to 11 units per net acre), to provide for zero-lot line houses, townhomes, condominiums, cluster homes and manufactured homes, and requiring internal open space and other amenities.
- ◆ MD - Medium Density (six to 15 units per net acre), to provide for multiple-family dwelling units, and requiring a high degree of design and recreational amenities.
- ◆ HD - High Density (16 to 29 units per net acre), to provide for both existing higher density residential areas and for new special-purpose residential development, such as for senior or low-income housing.

■ Commercial

- ◆ CC - Central Commercial, specifically for the established central business district and the associated retail, service, office, financial, entertainment and cultural land uses.

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- ◆ NC - Neighborhood Commercial, to provide for the service, retail and convenience needs of residential neighborhoods.
- ◆ HSC - Highway Service Commercial, to provide for large-lot, automobile-oriented land uses in two subcategories:
 - Highway Visitor Commercial, for the needs of the traveling public, uses such as service stations, motels, fast-food outlets, and fruit and produce stands.
 - Special Commercial, for more general large-lot commercial operations, including offices, automobile sales, home improvement centers and heavy equipment dealers, and in restricted cases, major retail operations such as department and discount stores.
- Industrial
 - ◆ LI - Light Industrial, to permit limited manufacturing, processing or distribution activities in which environmental impacts such as odor, dust and noise are kept to a very low level, particularly with regard to neighboring properties.
 - ◆ HI - Heavy Industrial, generally limited to existing industrial uses, which require special considerations, but potentially applicable for new development if it is consistent with the Goals and Objectives of the General Plan.
 - ◆ PI - Planned Industrial, to provide encouragement for many types and sizes of industrial land uses, while giving priority to high levels of design, landscaping, environmental mitigation, and, where applicable, buffering from residential neighborhoods.

The EGP land use map designations are shown in **Figure 57**, with the acreages of the component land use areas, as measured by the EIR authors. **Figure 58** indicates the estimated acreage of existing developed areas and of vacant land in each land use designation. Based on the acreages in each residential land use designation, and the stated provisions for units per net acre, it is estimated that the EGP at build-out would result in a population increment of approximately 10,450, and a total population of about 15,000. The distribution of acreages and dwelling units by residential designations and by Planning Areas, for both existing and potential housing, is shown in **Figure 59**. Commercial and industrial development by Planning Areas as provided by the EGP is displayed in **Figure 60**, showing both acres and projected gross floor area at buildout.

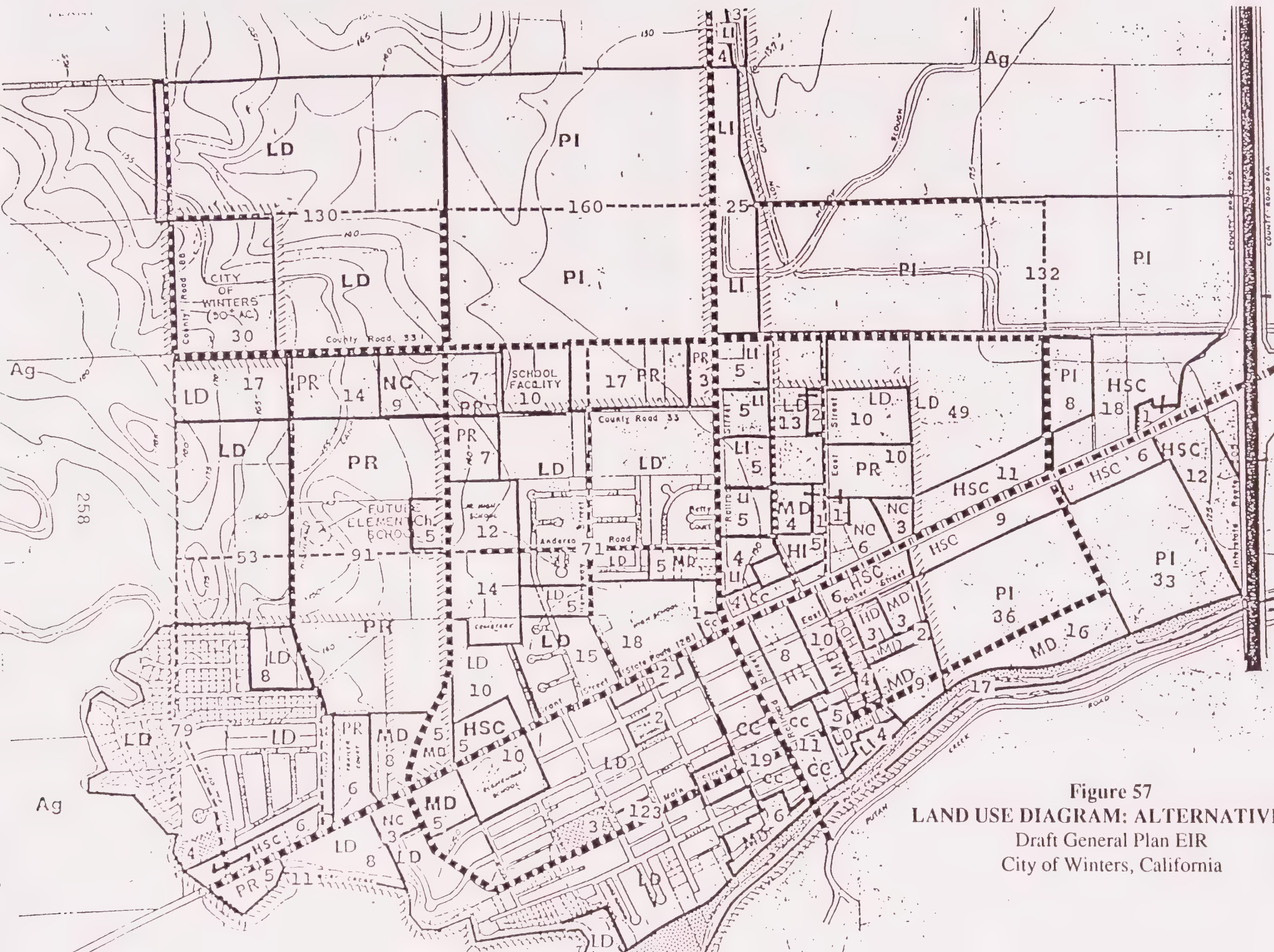


Figure 57
LAND USE DIAGRAM: ALTERNATIVE IV
 Draft General Plan EIR
 City of Winters, California

Figure 58
DISTRIBUTIONS OF LAND USE DESIGNATIONS BY VACANT AND DEVELOPED
ACREAGE BY PLANNING AREAS: ALTERNATIVE III
Draft General Plan EIR
City of Winters, California

	<u>PLANNING AREAS</u>						<u>COMBINED</u>
	<u>I</u>	<u>II</u>	<u>III</u>	<u>IV</u>	<u>V</u>	<u>TOTAL</u>	<u>TOTAL</u>
<u>Residential</u>	<u>Vac/Dev</u>	<u>Vac/Dev</u>	<u>Vac/Dev</u>	<u>Vac/Dev</u>	<u>Vac/Dev</u>	<u>Vac/Dev</u>	
LD	147/ 0	76/165	14 ¹ /123	0/ 5	62/12	299/305	604
PR	39/ 3 ²	91/ 18 ³	5/ 0	0/ 0	10/ 1	145/ 22	167
MD	0/ 0	13/ 5	5/ 6	18/ 22	0/ 5	36/ 38	74
HD	0/ 0	0/ 0	0/ 2	3/ 4	0/ 0	3/ 6	9
Sub-Total:	186/ 3	180/188	24/131	21/ 31	72/18	483/371	854
<u>Commercial</u>							
CC	0/ 0	0/ 1	0/ 19	2 ⁴ / 9	0/ 4	2/ 33	35
NC	9/ 0	0/ 0	3/ 0	0/ 0	3/ 6	15/ 6	21
HSC	0/ 0	3/ 8	0/ 0	33/ 0	29/ 1	65/ 9	74
Sub-Total:	9/ 0	3/ 9	3/ 19	35/ 9	32/11	82/ 48	130
<u>Industrial</u>							
LI	0/ 0	0/ 0	0/ 0	0/ 4	38/18	38/ 22	60
PI	160/ 0	0/ 0	0/ 0	69/ 0	140/ 0	369/ 0	369
HI	0/ 0	0/ 0	0/ 0	0/ 8	0/ 5	0/ 13	13
Sub-Total:	160/ 0	0/ 0	0/ 0	69/ 12	178/23	407/ 35	442
<u>Public Facilities</u>							
	30/10	4/ 44	0/ 41	0/ 17	0/ 0	34/112	146
TOTAL:	385/10	187/241	27/191	125/ 69	282/52	1,006/566	1,572
COMBINED							
TOTAL:	398	428	218	194	334	1,572	1,572

Source: Winters General Plan Map (Revised 1985, Updated 1986) and aerial photography (1989), as measured by Duncan & Jones. Developed land includes small areas with potential for increased density. Note: Planning Areas defined by proposed PAC Plan; Planning Area V, as applied to the existing General Plan is about 140 acres smaller than Planning Area V as defined in PAC Plan.

¹ Includes 6 acres of land possibly subject to flooding. ² In active industrial use.

³ Includes 5 acre church site. ⁴ Approximate area of land readily available for development.

Figure 59
EXISTING AND POTENTIAL DWELLING UNITS
BY PLANNING AREA: ALTERNATIVE IV
 Draft General Plan EIR
 City of Winters, California

	<u>PLANNING AREAS</u>						
	<u>I</u>	<u>II</u>	<u>III</u>	<u>IV</u>	<u>V</u>	<u>TOTAL</u>	
<u>Existing</u>	<u>Ac/DUs</u>	<u>Ac/DUs</u>	<u>Ac/DUs</u>	<u>Ac/DUs</u>	<u>Ac/DUs</u>	<u>Ac/DUs</u>	
<u>Acres/DUs:</u> ¹	3 ² / 0	188/ 834	131/494	31/206	18/ 97	371/1,631	
<u>Vacant Acres/</u>							
<u>Potential DUs:</u>							
LD	147/ 735	76/ 380	14/ 70	0/ 0	62/310	299/1,495	
PR	39/ 429	91/1,001	5/ 55	0/ 0	10/110	145/1,595	
MD	0/ 0	13/ 195	5/ 75	18/270	0/ 0	36/ 540	
HD	0/ 0	0/ 0	0/ 0	3/ 60	0/ 0	3/ 60	
Total:	186/1,164	180/1,576	24/200	21/330	72/420	483/3,690	
<u>Total Potential</u>							
<u>Acres/DUs:</u>	189/1,164	368/2,410	155/694	52/536	90/517	854/5,321	

Source: Winters General Plan Map (Revised 1985, Updated 1986), and aerial photography (1989), as measured by Duncan & Jones.

¹ Source: City of Winters

² In active industrial use

Figure 60
EXISTING AND POTENTIAL NON-RESIDENTIAL GROSS FLOOR AREA
BY PLANNING AREA: ALTERNATIVE IV
Draft General Plan EIR
City of Winters, California

	<u>PLANNING AREAS</u>						
	<u>I</u>	<u>II</u>	<u>III</u>	<u>IV</u>	<u>V</u>	<u>TOTAL</u>	
<u>Commercial</u>	<u>Ac/GSF</u>	<u>Ac/GSF</u>	<u>Ac/GSF</u>	<u>Ac/GSF</u>	<u>Ac/GSF</u>	<u>Ac/GSF</u>	
CC	-/ -	1/ 12	19/231	11/ 134	4/ 49	35/ 426	
NC	9/ 110	-/ -	3/ 36	- -	9/ 110	21/ 256	
HSC	-	11/134	-	33/ 403	30/ 366	74/ 903	
Sub-Total:	9/ 110	12/146	22/267	44/ 537	43/ 525	130/1,585	
<u>Industrial</u>							
LI	-/-	-/-	-/-	4/ 49	56/ 682	60/ 731	
PI	160/1,951	-/-	-/-	69/ 842	140/1,708	369/4,501	
HI	-/-	-/-	-/-	8/ 98	5/ 61	13/ 159	
Sub-Total:	160/1,951	-/-	-/-	81/ 989	201/2,451	442/5,391	
TOTAL	169/2,061	12/146	22/267	130/1,526	239/2,976	572/6,976	

Source: Winters General Plan Map, Sept. 1986, measured by Duncan & Jones.

* GSF (Gross Square Feet in thousands, assuming single story construction)
Based on 80% site utilization and 35% site coverage; acres and GSF rounded.

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A significant aspect of the EGP alternative from a land use perspective is the very substantial acreage of Planned Industrial use designated in the EGP map. In the event that all of the 442 acres of industrial land were to be developed, the estimated employment generated would be 6,188, based on a conservative estimate of 14 employees per acre. Assuming a ratio of one job per household (a general standard for defining a jobs/housing balance), and the projection of a total of 5,321 dwelling units, there would be a shortfall of housing, and Winters would become a net "importer" of employees commuting from other areas in the region.

An additional distinctive characteristic of the EGP alternative is the relatively high density provisions of the Planned Residential (up to a maximum of 11 dwelling units per acre) and the somewhat liberal allocation of acreage to this category. Such densities would typically consist of duplexes, townhouses and garden apartment structures, which, though not typical of a community such as Winters, could substantially reduce certain environmental impacts due to a more compact and efficient use of land.

It should also be noted that the EGP makes no provisions for a flood control project of the scale proposed by the Project or Alternatives II and III to deal with Moody Slough flooding. The solution to this particular flooding problem as suggested in the EGP would be the Winters Diversion proposed in the investigative report on the Chickahominy-Moody Slough Watershed prepared by the Yolo County Resource Conservation District. This diversion would primarily use cement-lined canals rather than the central lake and northern stormwater detention pond as proposed in the Draft General Plan (Storm Water Drainage Master Plan).

The other Elements of the EGP, such as the Circulation Element, Conservation, Open Space and Recreation Element, and Safety and Seismic Safety Element, incorporate a broad range of policies and implementation measures intended to serve the basic goals and objectives of the EGP. These goals, objectives, policies and implementation measures have been updated by the Project (the Draft General Plan), and do not have a particular bearing on the purpose of this chapter of the EIR. The intention of the following analysis is to evaluate the environmental impacts of land use development as defined by the existing General Plan in its role as Alternative IV. The character and content of the Elements in the EGP are explained in detail in the Winters General Plan document last updated in 1986.

1. Planning and Policy Context

a. Pattern of Development

Expansion of urban land use outwards from Winters under Alternative IV is intended to be guided by its goals and objectives that direct the City to institute a growth phasing program for orderly, compact development, and to allow growth strategically to avoid rapid, concentrated

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growth. The EGP's land use policies require supporting infrastructure and services to be in place before development occurs, and that the beneficiaries of development (i.e., developers, new residents, new businesses) share in the cost of those facilities and services. The Conservation and Open Space Element policies of the EGP also require the avoidance of leapfrog development and unnecessary sprawl. **The EGP would avoid the significant impact of an uncontrolled and irregular pattern of development.**

b. Population increase

The EGP would enable the development of an estimated 3,690 new dwelling units in Winters. The lower density units, which represent about half the total units, are projected to have a ratio of persons per household (pph) of 2.8, and with a total of 1,495 units, would result in a population of 4,186. A total of 2,135 units are projected at medium densities, at an overall average of 11.8 units per acre, with a ratio of 2.3 pph, and an anticipated population of 4,911 persons. Development at higher densities is projected to result in just 60 units, with 2.0 pph, and to accommodate a population of 120 persons. The total additional population would amount to 9,217 persons, and combined with the existing city population of 4,639 (U.S. Census, 1990), the NASP/EGP Alternative would result in a population at buildout (assumed to be 2010) of about 14,860, or nearly 15,000. This potential buildout of Alternative IV would be equivalent to 20 percent more than the proposed Project, and within an area that is 140 acres smaller than the area encompassed by the proposed Project. The rate of population growth which would be possible with the EGP, because of its residential land use designations, and higher overall densities, would be higher than the proposed Project on an annual average by about one full percentage point, or the same as the NASP/EGP. The higher density character of the EGP Alternative would substantially increase the cost efficiency of providing infrastructure and services, which would serve as a compensating or mitigating factor in the rate of growth. **The potential significant impact of an uncontrolled rate of population with respect to the City's ability to provide infrastructure and services would be avoided.**

c. Housing Density

The higher density provisions of the EGP, which does not include any areas designated for very low densities, would eliminate the potential for an excessive burden on the delivery and use of expenditures for infrastructure and public services. **The potential significant impact would be avoided.**

d. Housing Mixture and Affordability

The EGP designates substantial areas for Planned Development residential uses, which permits densities up to 11 units per acre, which would reduce land and infrastructure costs of develop-

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ment. Assuming that development would occur at a steady rate over the period of EGP buildout (assumed to be 2010), an estimated 922 units could be built by 1996. About 40 percent (369) of those units would be developed at average densities of five units per acre, which would suffice to meet the SACOG regional housing needs for units affordable to moderate and above-moderate income households (299 units). Of the remaining 60 percent of units expected to be built by 1996 (553), 20 percent, or 111 units, could be expected to be affordable to very-low income households, and 60 percent, or 332 units, affordable to low income households. These projections and estimates would result in a nearly total fulfillment of the regional housing needs defined by SACOG, for 113 units affordable to households with very-low incomes, and 87 units affordable to those with low incomes. Alternative IV would thus result in the least need, among all the Alternatives, for additional governmental programs to provide housing for low and very-low income households. **The potential impact of a failure to meet regional housing objectives would be avoided.**

e. Urban form

The EGP Land Use Diagram represents a potential buildout of the city around a large grid system of roadways, and without the Main Street Loop road. A new arterial roadway extending West Main Street north of Grant Avenue is proposed, but would turn to follow a straight line along the western edge of the cemetery and the middle school north to the urban limit line defined by the County Road 32A alignment. A straight east-west major arterial route with four lanes of traffic would be provided along County Road 33, which is proposed as a two lane major collector under the Project (Circulation Master Plan). These and other roadways would serve the need for access in the city in about the same manner as the Main Street Loop road in the other Alternatives. The mixture of land uses, including the large areas of planned industrial uses and a larger site for neighborhood commercial in the northwest area of the city, would result in new concentrations of activity outside the downtown area, which the roadways would interconnect and complement. **The impact would not be significant.**

f. Town Character

The EGP, if built out according to the its land use designations, would result in substantially more commercial and industrial development than would be the case under the Project. This would create jobs for workers in excess of those who could be housed within the projected amount of dwelling units (3,690) and could require workers from other areas to commute daily from homes elsewhere in the region to Winters. This would have a substantial effect on the character of the town, and could greatly accelerate pressure for growth and development outside the urban limit line. The loss of the city's agricultural, rural and small town qualities, with the equivalent of a half-square mile area of business and industrial parks, would be nearly guaranteed, in spite of the Existing General Plan's goals and objectives to preserve the friendly, small-

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town environment (Ref. 50, page I-1). The nine-acre area designated for neighborhood commercial in the northwest area of the city would accommodate a small shopping center which could draw customers away from the downtown area, and result in a distinctly new and separate activity and circulation pattern for many new residents, unrelated to the existing town. The EGP Land Use Diagram designates a school at the present site of the Agricultural School, but does not indicate an intention to preserve it as that type of facility. The high traffic volumes which the higher residential density would generate, and particularly from the concentrated business and industrial park development, would also have an adverse impact on the quality of life. **The town character would be significantly impacted.**

g. Yolo County General Plan: Phasing of Development/Preservation of Agricultural Lands

Alternative IV, the existing General Plan, incorporates a provision for phased development outwards from the city, though there is limited emphasis on infill and redevelopment of the existing urban area. The process by which surrounding agricultural lands would be annexed and developed as urban uses is essentially the same as with the proposed Project.

A potential conflict with the Yolo County General Plan with regard to development phasing and agricultural lands policies would not be significant, though the ultimate conversion of agricultural lands to urban uses would in itself be a significant impact.

h. Yolo County General Plan: Scenic/Open Space/trail corridors

The EGP includes policies directed at enhancement of the scenic qualities of Highway 128/Grant Avenue, consistent with its designation by Yolo County as a scenic highway. However, the land use designations in the critical segment just west of I-505 for highway service commercial uses, promotes development which is not consistent with either scenic, open space or recreational trail features. The Land Use Diagram designates an open space corridor along Putah Creek which would presumably serve the open space and trail purposes of the corridor, but would not promote a high level of scenic qualities (see section 11 below). **The potential impact of a conflict with the YCGP would not be significant.**

2. Traffic and Circulation

In terms of traffic generation, Alternative IV differs from the proposed Project by a substantial margin, but is very similar to the NASP/EGP, due to the virtually identical projections for dwelling units to be added. Alternative IV is expected to result in about 5,321 dwelling units at buildout, compared to 5,308 for the NASP/EGP and 3,023 for the Draft General Plan. Alternative IV differs strikingly in the amount of overall employment which would result from its buildout. While the NASP/EGP is estimated to result in 4,900 to 5,500 jobs in Winters at

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buildout, the EGP buildout is estimated to result in nearly twice this amount. Additionally, while the NASP/EGP would add most of the planned new industrial development in the area immediately west of I-505, the EGP would add a substantial amount of industrial development in the area north of Niemann Street (CR 33), and west of Railroad Street (CR 89).

As a result of the sharply increased amount of employment which would result from EGP buildout, the total trip generation for Alternative IV would be higher than that for the NASP/EGP, and substantially more than for the proposed Project. The Alternative IV street network is substantially different from that proposed for either the NASP/EGP or the Project. Both the NASP/EGP and the Project include the Main Street Loop road as the major new street serving the newly developed residential areas. Alternative IV, rather than a relatively long, meandering loop road, includes mostly extensions of streets in the existing grid street system. **Figure 61** illustrates the daily traffic forecast with Alternative IV buildout. The major difference between Alternative IV and the NASP/EGP and Project scenarios is that while the total trip generation of Alternative IV is significantly higher, traffic volumes on Grant Avenue are actually slightly lower.

The major reason for this difference is that between 11,000 and 15,000 daily trips are forecast to use a major collector street which is an extension of County Road 33 directly to the west across Railroad Street. This street in this Alternative serves as an effective parallel route to Grant Avenue, and in effect relieves some Grant Avenue traffic.

Alternative IV is not without problems from the traffic and circulation perspective. First, approach volumes to the Grant Avenue/Railroad Street intersection are similar to the NASP/EGP and Project, which suggests that this Alternative would not resolve the bottleneck at this intersection. Second, traffic volumes on the constrained segment of Grant Avenue west of Railroad are only slightly less than the NASP/EGP, and would result in significant delays and difficulty in pedestrian crossings at this segment.

However, the overall traffic increases would result in severe traffic conditions equivalent to the NASP/EGP, and to the Project (without the addition of signals). **The EGP would result in significant impacts on overall traffic congestion of arterial streets in the city.**

In addition, the constraining right-of-way along Grant Avenue west of Railroad Avenue would still result in aggravated congestion, both for motorists and pedestrians and bicyclists seeking to cross Grant Avenue in this segment. **This specific condition constitutes a significant impact.**

Additionally, Alternative IV would result in a substantial increase in the amount of traffic coming into Winters, due to the surplus in employment expected to result from EGP buildout. The NASP/EGP is forecast to result in between 5,000 and 6,000 trips per day to and from areas outside of Winters (not including through traffic). Alternative IV is forecast to result in three times this number, or about 15,000 daily trips, to and from areas outside of Winters. Most of these trips are generated by a surplus of employment in Winters with EGP buildout.

SOURCE: Wilbur Smith Associates, July 1990.



Figure 61
FORECAST AVERAGE DAILY TRAFFIC: ALTERNATIVE IV
Draft General Plan EIR
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While the total impact of the NASP/EGP and Project on the freeway off-ramps is forecast to be mitigated through signalization of the ramps and minor geometric improvements, EGP buildout would require more substantial improvements to accommodate the increase in traffic volumes. **The impact would be significant.**

3. Infrastructure Services and Facilities

a. Water Supply

Water use under the EGP would result in a total new demand for an estimated 3.4 million gallons per day, and cumulative water use would be approximately 4.9 mgd (current water demand is estimated at 1.45 mgd). This would be less water use than projected under the NASP/EGP (5.24 mgd), and also less than the proposed Project (5.05 mgd). Although the industrial water demand would be considerably higher, the higher residential density would require a lesser degree of landscape irrigation. The EGP does not provide an effective means for conserving water, or for upgrading the wells and related systems to handle peak hour demands. **The overall demand for new water supply systems and inadequate water conservation strategies would have a significant effect on water supply.**

b. Wastewater Treatment

Impacts to the City sewer system would be similar to the NASP/EGP in regard to quantity, and less than the proposed Project by about 0.2 mgd. With the large area of industrial land use designated, additional impacts might be experienced depending on the type of industry which developed, and the character of wastewater generated. The EGP requires the appropriate extension of sewer lines, and their modernization as needed, but it does not provide plans or policies to address the inadequacies of the treatment plant. **The impact on the city's wastewater treatment plant and other facilities would be significant.**

c. Storm Drainage

Buildout under the Existing General Plan (EGP) would pose a greater magnitude of storm drainage impacts than compared to the proposed Project. Because of the high proportion of Planned Industrial use and higher density residential uses designated on the EGP map, the runoff rate and volume would be about 40 percent greater than for development projected under the Project. Runoff for a 10-year storm would increase by about 480 cfs for the EGP at buildout.

The EGP Alternative makes no provisions for a detention basin/lake or other drainage improvements called for under the NASP.

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As a means of mitigating the drainage impacts resulting from the Status Quo Alternative, the Winters Diversion plan suggested in the investigative report on the Chickahominy/Moody Slough Water-shed by the Yolo County Resource Conservation District could be implemented to divert drainage from Moody Slough via a concrete-lined "U" ditch to Putah Creek along an alignment similar to that of the drainage pipe proposed under the NASP/EGP Alternative.

If the 24-acre lake were not incorporated into the drainage master plan, two to three other smaller detention ponds should nevertheless be established, notably in the industrial portion of the EGP to reduce the potentially significant erosional impacts from storm runoff to Putah Creek.

d. Solid Waste

The EGP would result in the addition of an estimated 9,400 persons to the city's population, or the same as the NASP/EGP, and more than the proposed Project. The existing General Plan does not include any requirements for waste reduction, and thus Alternative IV would contribute to the state and regional cumulative impact on waste handling facilities. **The impact on solid waste handling capacity would be a significant, cumulative impact.**

4. Emergency Facilities/Services

The need for expanded Fire District and Police Department personnel, equipment and facilities would be similar to those experienced under the Project. The increased population would require the addition of a new police/fire station, and increased personnel and staff for each service. The EGP Land Use Diagram does not define a new site for a new station, or suggest an interest in a single facility for both the Fire District and Police Department. The Safety and Seismic Safety Element of the EGP directs the city to provide an optimum level of fire and police protection services, within a constraint of reasonable cost and acceptable risks. **The absence of a site for new public safety facilities represents a significant impact.**

5. Other Services

The demand for schools, parks and recreational facilities, as well as public utilities, would be similar to the NASP/EGP, and would require a total of 45 acres of parks, and at least two new elementary schools, a new middle school and substantial increases in the capacity of the high school. However, the EGP designates virtually no new parkland, and only one new future elementary school site. **The impact on both parks and schools would be significant.**

6. Fiscal/Public Financing Considerations

Under Alternative IV, population growth would be approximately 20 percent larger than the proposed Project, and could be substantially different from the Project in its economic and fiscal characteristics. The most important distinction of the EGP Land Use Diagram is the large area designated "Planned Industrial," in which future industrial development could generate substantial additional revenue. This would have a beneficial effect on the city's finances. However, the assumption that this development would occur is somewhat speculative. A fiscal analysis based on market conditions, related to Winters location, and established infrastructure and workforce population, indicates that very little of the anticipated industrial development would take place. The effect on the general fund balance, based on this analysis, would result in a net negative fund balance of \$837,000. The EGP, though it incorporates policies requiring development to participate in the cost of new infrastructure and services, does not propose the use of any special techniques for financing these needed improvements and expenditures. **The fiscal effect of the EGP, assuming existing market demand for unimproved industrial land in Winters, would be substantial and adverse.**

7. Biotic Considerations

The implementation of the existing General Plan (EGP) to full buildout will result in essentially all of the same impacts as the Project. However, the EGP would result in more commercial and industrial development and less open space and public use acreage. Therefore, more habitat would be lost and wildlife displaced because there would be less open space and parkland to help mitigate habitat loss. The increase in runoff from additional commercial and industrial development may also result in increase storm runoff and potential impacts to riparian wildlife and fish habitat along Putah Creek due to direct loss (scouring, siltation, bank migration) or decreased water quality. The EGP, like the NASP/EGP, does not contain specific policies and programs to protect biological resources along Putah and Dry Creeks. Therefore, the EGP is the least preferred alternative from a biological perspective. The same measures recommended for the Project for mitigation of biological impacts would apply to the EGP alternative, but would not eliminate the regional impacts on biological resources. **The overall, cumulative impact would be significant.**

8. Geotechnical/Geologic/Soils Considerations

The No-Project Alternative, the EGP, does not propose any urban development, or a recreational use such as a golf course on the old landfill site, and thus eliminates the potential for irrigation of the site which would effect any contaminants in the landfill and adversely effect groundwater. The potential impacts for an increased population exposed to existing earthquake hazards in the region, however, would be the same as with the NASP/EGP, and relatively greater than the Pro-

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ject, because of the 20 percent larger population. However, the policies of the EGP for adoption and enforcement of the most current and appropriate editions of the Uniform Building Code, and active promotion of structural rehabilitation of older buildings in the city, would provide effective assurance for prevention of serious seismic or related hazards. In addition, a contingency plan for emergency services would be prepared and periodically updated (Ref. 50, page VI-11). **The potential impact of unsafe seismic conditions would be avoided.**

9. Noise

The noise impacts of traffic generated by development as defined by the EGP, Alternative IV, would be generally the same as the NASP/EGP, Alternative III, and in most respects, greater than the proposed Project. Noise conditions along Main Street and Grant Avenue would be more severe than with traffic estimated for the Project, by 8 dB and as high as 10 dB, respectively. Major increases in traffic noise under Alternative IV compared to the Project would also occur on the portion of County Road 33 west of Railroad Street, which is projected to result in traffic volumes which would increase the existing noise level by 8 dB, or 5 dB greater than the proposed Project. The new segment of County Road 33 to the west would exhibit a 9 dB noise level. However, the noise levels along Anderson Avenue, and on Niemann Street, would be reduced compared to the Project, and the noise increases on Railroad Street would also be smaller than with traffic generated by the Project. For the rest of the street network, noise levels under the EGP scenario would be generally similar to the NASP/EGP scenario. **The impact of traffic throughout the city on noise conditions would be significant.**

10. Air Quality

Urban development under the EGP Alternative would result in adverse construction and traffic-generated air quality impacts similar to the proposed Project, but because of the larger population, such as projected for the NASP/EGP, the numbers of people adversely affected would be greater. Local air quality impacts, such as carbon monoxide, would be proportional to the population increase, or about 20 percent more for Alternative IV over the proposed Project. It would, however, result in a jobs/housing imbalance that would require in-commuting from other communities. This would tend to increase the average trip length for home-to-work trips, so that the impacts of this alternative, particularly on a regional basis, would be substantially greater than that of the proposed Project. **The air quality impacts would be significant and regionally cumulative.**

The EGP would also result in moderately high densities at the perimeter of the expansion area, which could result in adverse impacts on residents from ongoing agricultural activities, such as pesticide spraying, waste burning and odors. **The potential for adverse urban-agricultural conflicts in air quality is a significant impact.**

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11. Other Considerations

a. Visual Resources

The EGP would result in similar visual impacts as the proposed Project, including the loss of views, the conversion of land from a rural to a suburban, bedroom community appearance, and replacement of mountain and rural views from Grant Avenue at I-505 with commercial development. The development of large expanses of business and industrial parks, as promoted by the EGP would also have a potentially disrupting influence, and combined with commercial development along Grant Avenue west of I-505, would impact negatively on its Scenic Highway designation. The existing General Plan has a mild program of upgrading the physical appearance of the downtown area, but does not propose the removal of existing industrial activities from the downtown. **The visual impact of Alternative IV would be significant.**

b. Light and Glare

The No-Project Alternative would have the same impacts as the proposed Project, including the regional, cumulative loss of night sky clarity, and could be more severe with the potential development of large industrial plants. The EGP Land Use Diagram designations increase the potential for commercial and industrial lighting which would be disruptive to residential areas, due to the number of instances in which the two uses would be relatively close to one another. **The impact on night sky clarity, and potentially on residential night time glare, would be significant.**

c. Conversion of Agricultural Land

The EGP Alternative would result in similar, adverse and unmitigable impacts as the proposed Project, because a large amount of agricultural land area is proposed for urban development. The 140 acre area in the northwest of the city which is not included in the EGP Land Use Diagram, however, is almost double the amount of land in the Open Space Preserve defined in the Land Use Diagram of the Project, but the overall impact of urban development on prime farmland is not eliminated. In addition, because the EGP could generate more employment than it could accommodate new residents, it could increase growth pressure on other nearby agricultural communities, or for an accelerated rate of annexation by the City of agricultural lands around Winters. **The conversion of agricultural land to urban uses would have a significant, cumulative, regional environmental impact.**

The EGP proposes residential development adjacent to active agricultural land at moderately high densities, similar to Alternative II, the Modified Draft General Plan, which would result in a higher probability of conflicts between the two uses than with the land use configuration of the proposed Project. **The potential for urban-agricultural conflicts would be a significant impact on the continued viability of surrounding farmlands.**

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d. Cultural/Archaeological Resources

The risk of disturbing sensitive archaeological sites would be very similar to that under the Project, which is limited, but not unforeseen. The EGP does not provide any policies addressing the need to protect archaeological sites through consultation with specialists in the field, or initiating other protective procedures. **The potential for destruction or overcovering of important archaeological sites in the Winters area is a significant impact.**

The EGP contains an Historic Preservation Element concerned with all aspects of preservation and rehabilitation, and is generally similar to equivalent policies in the proposed Draft General Plan (the Project). **The potential impact on historic architectural and related resources would not be significant.**

C. ALTERNATIVE V - REDUCED DENSITY PLAN

The option of keeping population growth in Winters to a minimum is reflected by Alternative V, defined as the Reduced Density Plan (RDP), which primarily lowers the density at which residential development may occur, while utilizing approximately the same amount of land. The RDP is intended to yield about one-third fewer new dwelling units than are proposed by the Project, and a population by the year 2010 of about 11,000 persons. Several aspects of Alternative V were derived from the suggestions of an independent citizens' group known as Citizens for Orderly Growth. The chief objective of the RDP is a reduced rate of growth relative to the other Alternatives, particularly Alternatives III and IV, as well as larger lot sizes, and conservation of agricultural soils.

The conceptual land use diagram for Alternative V is shown in **Figure 62**, showing large areas around the city designated for a residential category of Very Low Density which is unique to the RDP. As shown in **Figure 63**, the average density (1.5 units per acre) is higher than projected for the related Rural Residential designation in the Draft General Plan (0.5 to 1.0 unit per acre). However, the RDP Alternative utilizes almost one-half of the total residential land area for this designation, while less than ten percent of the land designated for residential uses in the 1991 General Plan are proposed for the Rural Residential designation. This results in a much lower overall density of residential development, and it is intended that these larger lots would be developed towards the outside of the city, serving partly as a buffer between agricultural uses and the relatively higher density areas of the city. The Very Low Density designation would provide for substantial areas of ranchette-type development with a roughly even split between half- and full-acre home sites.

Figure 63
DISTRIBUTIONS OF LAND USE DESIGNATIONS: ALTERNATIVE V
Draft General Plan EIR
City of Winters, California

A.	<u>RESIDENTIAL</u>	<u>Acres</u>	<u>Units</u>	<u>Average Density</u>
	<u>Vacant Residential</u>			
VLD -	Very Low Density	309	460 (20.0%)	1.5/ac
LD -	Low Density	191	689 (30.0%)	3.6/ac
MLD -	Medium Low Density	121	574 (25.0%)	4.7/ac
MD -	Medium Density	45	405 (17.5%)	9.0/ac
MHD -	Medium High Density	10	117 (5.0%)	11.7/ac
HD -	High Density	2	52 (2.5%)	26.0/ac
	Sub-Totals:	678 ¹	2,297	3.4/ac
	<u>Developed Residential</u>	345 ²	1,631	
	Total Vacant & Developed	1,023	3,928 ³	3.8/ac
B.	<u>COMMERCIAL/INDUSTRIAL</u>			
	<u>LAND USE (TOTAL)</u>	<u>Acres</u>	<u>GSF*</u>	
CBD -	Central Business District	27	329	
HSC -	Highway Service Commercial	26	317	
HIC -	Highway High Intensity Commercial	44	537	
LC -	Local Commercial	11	135	
IND -	Industrial	101	1,232	
A/I -	Agricultural/Industrial Study Area	115	- -	
	Sub-Totals:	324	2,550	
C.	<u>PUBLIC FACILITIES</u>			
	(Parks, Open Space Schools and other)	562		
D.	TOTAL: ALL LAND USES	1,909		

*GSF: Gross Square Feet in thousands, based on 80% net acreage and 35% lot coverage, single story construction.

- ¹ Includes some areas assumed for future redevelopment from lower to higher densities.
- ² Acreage reflects only areas which are developed and not identified for redevelopment.
- ³ Based on 3,928 units at 2.83 persons per unit, population would total 11,116 persons.

Source: Winters City Manager's Office; conceptual distributions by Duncan & Jones using PAC Plan provisions and concepts presented by an independent citizens group (Citizens for Orderly Growth).

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For the other land use designations, the RDP utilizes density and other provisions similar to the residential designations defined in the Draft General Plan, but uses some different names and acronyms in order to distinguish it from the Project. The residential designations used for the RDP are summarized below, with references to the similarity with or differences from related designations in the Draft General Plan:

- ◆ VLD - Very Low Density, permitting limited agricultural activities on half-acre or larger lots, with residential densities between one and two units per net acre, and averaging 1.5 units per acre. (smaller lots than Rural Residential, but much greater utilization)
- ◆ LD - Low Density, permitting densities between two and four units per acre). (roughly equivalent to Low Density Residential)
- ◆ MLD - Medium Low Density, permitting densities in the range of four to five units per acre (primarily minimum 7,500 square-foot lots for detached single family homes. (larger lots than Medium Density Residential, and no attached units)
- ◆ MD - Medium Density, permitting five to nine dwelling units per acre, to provide for townhouse development and zero-lot line and patio homes. (slightly more lot area per unit than Medium High Density Residential)
- ◆ MHD - Medium High Density, permitting between nine and fifteen units per acre, to provide for townhouse, condominium and apartment complexes. (equivalent to the lower range of High Density Residential)
- ◆ HD - High Density, permitting densities in the range of 15-26 units per acre, to provide for three-story or higher condominium and apartment complexes. (includes, but exceeds the higher range of High Density Residential; very limited utilization)

The distribution by Planning Areas of land use designations, potential dwelling units and non-residential gross floor area, is shown in **Figure 63**. Several features of the Draft General Plan are utilized in Alternative V, such as the lake for the partial purpose of flood control; new elementary and junior high school sites; provision for a potential golf course utilizing the former landfill site and the City's wastewater spraying fields, and a revised loop road with a smaller radius, to reflect a community with lower densities on its periphery. The RDP includes special purpose parks, and a category of Highway High Intensity Commercial for land uses that cater primarily to tourists and freeway travelers, limited to the area along Grant Avenue immediately west of I-505. A large area, similar to the Open Space Preserve area designated in the Draft General Plan between the loop arterial and the industrial uses west of I-505, is described as an Agricultural/Industrial Study Area with potential for preserving the high quality soils for intensive agricultural production or agriculturally-related industrial uses, including greenhouses.

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In the RDP, the area of commercial and industrial land is reduced from the quantities proposed in the Draft General Plan to conform to the needs of a smaller population, and the Central Business District is defined in a more compact configuration. Excluding the Local Commercial uses and the Agricultural/Industrial Study Area, the other commercial and industrial areas designated would be sufficient to provide employment for an estimated 2,772 persons, at a ratio of 14 jobs per acre. Although the potential uses of the Agricultural/Industrial Study Area are highly speculative, about 1,150 jobs could be generated at an average density of 10 employees per acre. The projected total number of dwelling units under the RDP (3,928) would be roughly consistent with the total potential jobs (3,922) resulting from the land use provisions of the RDP.

While the Agricultural/Industrial Study Area may not generate as many jobs as suggested, it is also possible that the ranchette provisions of the RDP might attract more retirees, and thereby enable a relatively stable balance of jobs and housing to be maintained.

1. Planning and Policy Context

a. Pattern of Development

Outward growth of the city according to the RDP, Alternative V, would occur under the same procedures as defined in the Project, the Draft General Plan, and therefore should expand in an orderly manner, guided by the extension of public services and infrastructure. **The impact on the pattern of development would not be significant.**

b. Population Increase

Under the RDP, residential development would take place at densities considerably lower than those defined by the Project. This would result in the smallest population forecast for any of the other Alternative scenarios, of under 11,000 persons. The lower density units, ranging from 1.5 to 4.7 units per acre, represent about 75 percent of the total units, and are projected to have a ratio of persons per household (pph) of 2.8. With a total of 1,723 units, would result in a population of 4,824. A total of 522 units are projected at medium densities, at an overall average of 9.5 units per acre, with a ratio of 2.3 pph, and an anticipated population of 1,201 persons. Development at higher densities (26 units per acre) is projected to result in only 52 units, with 2.0 pph, and to accommodate a population of 104 persons. The total additional population would amount to 6,129 persons, and combined with the existing city population of 4,639 (U.S. Census, 1990), the NASP/EGP Alternative would result in a population at buildout (assumed to be 2010) of about 10,770, or nearly 11,000. The Alternative V population would be equivalent to 12 percent less than the proposed Project, but within the same area as the Project. The rate of population growth would be lower than the proposed Project on an annual average by a little more than half a percentage point, or 4.4 percent per year. **The potential significant impact of an uncontrolled rate of population with respect to the City's ability to provide infrastructure and services would be avoided.**

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c. Housing Density

The low density character of the RDP Alternative would substantially decrease the cost efficiency of providing infrastructure and services, and result in a very high ratio of costs per unit. A full 50 percent of the new dwelling units would develop at a density of less than four units per acre, which would noticeably increase the numbers of persons served, for example, per mile of new roadway.

The extension of infrastructure required to support lower-density residential development proposed under the RDP would be significant.

d. Housing Mixture and Affordability

Because the RDP would result in residential development at a generally very low density, with high land costs, it would be very difficult to achieve the SACOG regional housing objectives, particularly in view of the RDP's intent to strictly minimize the population. Assuming a steady rate of growth, and 25 percent of all units, or 574 units, are built by 1996, the actual number of units would meet the SACOG objectives, but the affordability of those units to the various income categories is highly questionable. Approximately 50 percent of all the units potentially built by 1996 (287) would be affordable only to those with above-moderate incomes, while the middle density units (144 units at 4.7 per acre) would be only 50 percent (72) affordable to those with moderate incomes. Of the estimated 144 units projected to be built by 1996 at higher densities, 60 percent (86) could be affordable to lower income households, and 20 percent (29) could be affordable to households with very-low incomes. Compared to the SACOG housing objectives, the RDP would adequately serve the needs of above-moderate, and low income households, but the City would have to initiate assistance programs for both moderate and very-low income households, a troubling sign of the unsuitability of the RDP from a housing affordability stance. **The potential impact of a failure to meet regional housing objectives would be significant.**

e. Urban form

The RDP Land Use Diagram represents a buildout of the city in virtually the same form as the proposed Project, and its potential for limited value of the Loop roadway is the same as the Project. **The impact would not be significant.**

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f. Town Character

The RDP would result in a town character distinctly different from any of the other Alternatives, partly due to the smaller population, but essentially due to the low density, ranchette characteristics which it would engender. The RDP's land use designations would result in moderately less commercial and industrial development than would be the case under the Project, but the balance of jobs to housing could be better served by Alternative V, by attracting more retirees, and minimizing Winters role as a bedroom community. The potential loss of the city's agricultural, rural and small town qualities, would be nearly eliminated by the large lots, many of which could function as horse properties. The limited level of commercial development outside of the downtown would retain most activity within the central business district. The RDP Land Use Diagram would retain the Agricultural School at its present site. The greatest change could result from a more affluent populace, and perhaps a much older generation, on average, with fewer children and expanded senior service or activity demands. **The small town character would not be significantly impacted.**

g. Yolo County General Plan: Phasing of Development/Preservation of Agricultural Lands

Alternative V, the RDP, incorporates the same provisions for phased development outwards from the city as the Project, and would therefore have an identical effect on the annexation and development of agricultural lands.

A potential conflict with the Yolo County General Plan with regard to development phasing and agricultural lands policies would not be significant, though the ultimate conversion of agricultural lands to urban uses would in itself be a significant impact.

h. Yolo County General Plan: Scenic/Open Space/trail corridors

The RDP utilizes the same policies as the proposed Project for protection of the Putah Creek open space corridor, the promotion of a regional bikeway system, and design guidelines consistent with the designation of Highway 128 as a scenic highway. **The potential impact of a conflict with the YCGP's policies regarding scenic and related corridors would not be significant.**

2. Traffic and Circulation

In terms of traffic generation, Alternative V is forecast to generate substantially less new traffic than the Project, or Alternatives III and IV. Alternative V would yield only about 2,300 additional units, compared to about 3,000 for the Project, and nearly 3,700 units for Alternatives III and IV.

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The increase in employment estimated to result from buildout of Alternative V is much less than would result from the Project or Alternative III, and particularly Alternative IV. Alternative V is estimated to result in total employment of about 3,000, which is less than one-half the level expected to result from Project buildout, and less than one-third of the jobs produced from Alternative IV buildout.

The street network proposed for Alternative V includes a scaled-down version of the Main Street Loop, serving the future residential areas north of town. A major difference in the network for Alternative V is the absence of an extension of County Road 90, which runs along the western side of I-505.

Daily traffic forecast for Alternative V is shown in **Figure 64**. As expected, the overall level of traffic on Grant Avenue and other major streets is considerably less than for any of the other development scenarios, particularly the NASP/EGP and the EGP. Compared to the Project, Grant Avenue would carry about 1,000 fewer trips per day, and up to 4,000 fewer trips than the NASP/EGP. The absence of an extension of County Road 90 and connector roads between the Main Street Loop and the industrial areas west of I-505 contributes substantially to the traffic on Grant Avenue, which could be much less with such connectors.

Because of the significant decreases in traffic on Grant Avenue, Alternative V would result in less traffic volume on Grant Avenue. However, overall traffic on Grant would still range between double and triple the present volumes, and the same mitigation measures defined for the Project would apply to this alternative. Overall traffic increases would result in severe traffic conditions equivalent to the Project (without the addition of signals). **The RDP would result in significant impacts on overall traffic congestion of arterial streets in the city.**

The traffic increases on the constrained right-of-way segment of Grant Avenue west of Railroad after installation of a traffic signal would still result in delays and difficulties in pedestrian and bicycle crossings on this segment, unless some type of signal or stop sign could be installed. The likely peak hour volumes, given the forecast daily volume of about 15,500, would make installation of a stop sign, or the installation of a signal without widening the roadway to four lanes, inadvisable. **This specific condition constitutes a significant, unavoidable impact.**

3. Infrastructure Services and Facilities

a. Water Supply

Water use under the RDP would result in a total demand, including existing and new uses, for an estimated 5.49 million gallons per day. This would be significantly more water use than projected under the proposed Project.



Figure 64
FORECAST AVERAGE DAILY TRAFFIC: ALTERNATIVE V
 Draft General Plan EIR
 City of Winters, California



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The amount of water use under the RDP is the result of large areas designated for public facilities (parks, open space, schools, and other uses). However, the RDP would result in a higher rate of groundwater recharge as a result. Because estimated total water consumption was based on acreage rather than dwelling units or population, the reduced density of this alternative was not a factor in determining water consumption. The same water conservation policies as the proposed Project (Urban Water Management Plan) would be incorporated into the RDP, but the moderate conservation program recommended for the Project would not be sufficient for the higher water demands of the RDP. **The potential impact on water consumption is cumulatively significant. The RDP would require the aggressive alternative program of the water conservation policies.**

b. Wastewater Treatment

Wastewater treatment facility requirements would be reduced somewhat because of the reduced population. The extent of collection lines would not be reduced by this alternative. The large Agricultural/Industrial area could have increased disposal requirements, depending on its use. The RDP incorporates the same policies as the proposed Project requiring the appropriate extension of sewer lines, and the completion of repairs and modernization of the treatment facility. **The impact on the city's wastewater treatment plant and other facilities would not be significant.**

c. Storm Drainage

The RDP alternative would pose relatively minor drainage impacts in comparison to the Project. Given the significant area of open space included in this scenario, the present rate of net runoff would be only minimally increased. The RDP incorporates the same policies and implementation strategies as the Project (Storm Drainage Master Plan) regarding the drainage system, and the Northern Stormwater Diversion pond, although the diameter of the Diversion canal could be reduced due to the decreased runoff. **The impact would not be significant.**

d. Solid Waste

With an ultimate population under the RDP of about 11,000, solid waste generation is estimated at about 10,600 tons per year at buildout (assuming the estimated 1.65 ton/year rate of generation.) This represents about half the service impact of the proposed NASP. An additional two or three new trucks would be required to accommodate the additional waste hauling needs. The same waste reduction and recycling programs proposed as part of the Project are incorporated into the RDP. **The impact would not be significant.**

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4. Emergency Services and Facilities

Requirements for police and fire department staff would be reduced somewhat by Alternative V due to the lower population served. With a projected population of 11,000 people, five fewer police officers would be required for the City Police Department than under the Project. The RDP incorporates the same policies as the Project requiring adequate public safety facilities, and the provision of an optimum level of fire and police protection services. However, there would still be a need for expanded police and fire protection facilities and equipment. The existing buildings are not sufficient to accommodate the increased demand for services. A new public safety facility would be necessary, but not necessarily at the same relative location as proposed under both the Project and the NASP/EGP, near the intersection of the Main Street Loop road and Railroad Avenue, but possibly within the older area of Winters, due to the very low density of development that would occur in the northern area of the city. **The absence of a site for new public safety facilities represents a significant impact.**

5. Other Services

With a lower population than projected under the NASP/EGP, the EGP, or the Project, the demand for schools, parks and recreational facilities would be reduced under the RDP. However, development at lower densities could result in a higher per-unit cost of extending public utilities to a large number of "ranchettes".

6. Fiscal/Public Financing Considerations

Population growth in Winters would be significantly less under the RDP than that projected to occur with implementation of the Project. However, the Very Low Density development proposed in Alternative V would require systems of infrastructure and support services that would be very similar to those described for the other scenarios, and the costs of providing these systems could be expected to be comparable to those of the Project, resulting in higher average cost burdens per household. The RDP, on the basis of fiscal analysis and comparison with the Alternatives III and IV, would result in lower levels of revenue generated as a result of residential development, and would result in a net negative general fund balance of \$481,600. However, the fiscal imbalance is still substantially less severe than the proposed Project, which is estimated to have a negative balance of \$864,800. **The effect would be substantial.**

Although industrial development and job creation would not be as high as expected under the Project, or the other Alternatives, it is possible that "ranchettes" might attract retirees, thus limiting impacts on the local school system.

7. Biotic Considerations

Implementation of the RDP alternative would result in the conversion of 1,343 undeveloped acres to residential, commercial and industrial use. The RDP differs from the Project primarily in the number of dwelling units provided (2,297 new dwelling units versus 3,023 for the Project) and the establishment of a large area of very low density and low density residential development enveloping Winters on the west, north and east sides. This would provide for a broad transitional area between dense residential subdivisions and agricultural habitat. Large lot residential areas with vacant, successional fields, and more diverse landscaping including trees, shrubs, hedgerows, may provide more habitat diversity and support a greater variety of species than large tracts of similarly cultivated fields. The RDP would incorporate the same initial conservation policies and programs for Putah and Dry Creeks as the Project. Therefore, the RDP would result in the least loss of habitat and displacement of wildlife of all the alternatives and be preferable from a biological perspective. The same mitigation measures as recommended for the Project should apply to the RDP. Use of native tree, shrub and herbaceous species should particularly be encouraged in landscaping of very low density residential areas to provide habitat for native species as well as to reduce watering requirements. However, these measures would not eliminate the regional impacts on biological communities. **The overall, cumulative impact would be significant.**

8. Geotechnical/Geologic/Soils Considerations

The Reduce Density Alternative, the RDP, includes the designation of the old landfill site for the proposed golf course, and thus would also have the same potential as the proposed Project for irrigation of the site which would effect any contaminants in the landfill and adversely effect groundwater. However, as with the Project, the actual development of the golf course is a decision left to the developers in the area, and the NASP indicates that the development of the landfill site as a golf course would be entirely contingent on the completion of final studies of the potential contaminants and the estimated remediation costs. Therefore, no potential exists at the present time for degradation to groundwater as a result of golf course irrigation, combined with potential contaminants in the landfill.

The potential impacts for an increased population exposed to existing earthquake hazards in the region, however, would be relatively less than the Project, because of the 12 percent smaller population. The RDP incorporates the same programs for high standards of construction technique, as well as rehabilitation of older buildings in the CBD. **The potential impact of unsafe seismic conditions would be avoided.**

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9. Noise

Because of the substantially reduced traffic volumes related to the RDP Alternative, major noise increases would be primarily limited overall. However, because of the lack of an east-west connecting route along County Road 33 under the RDP Alternative, traffic volumes on the Main Street Loop immediately north of Grant Avenue would be greatly in excess of the volumes projected in this area with development as defined by the Project. This would result in an noise level increase over the Project of 8 dB. In overall terms, however, the difference in noise levels between the RDP scenario and the NASP/EGP scenario is limited. **The noise levels would not be significant.**

10. Air Quality

This alternative would result in a 12 percent smaller population compared to the proposed Project, and 28 percent smaller than the Modified Draft General Plan (Alternative II), and so the RDP's effects on local (carbon monoxide) and regional air quality would be proportionally lower. Construction-related impacts would be similar, but the potential number of people who would be adversely affected could be less. The RDP incorporates the same trip-reduction strategies as the proposed Project, which would serve to minimize air quality degradation in both the local and regional context. **The air quality impacts are less than significant.**

The potential for adverse impacts on residents from ongoing agricultural activities, such as pesticide spraying, waste burning and odors would be considerably reduced, due to the lower density development promoted around the perimeter of the city, compared to the Project, and particularly to the Modified Draft General Plan (Alternative II) and Alternatives III and IV. **The potential for adverse urban-agricultural conflicts in air quality is less than significant.**

11. Other Considerations

a. Visual Resources

The Reduced Density Plan Alternative would have some distinctly different visual characteristics compared to the proposed Project, but in general, the RDP would result in similar visual impacts as the proposed Project, including the loss of views, and replacement of mountain and rural views from Grant Avenue at I-505 with commercial development. The Agricultural/Industrial area of Alternative V, potentially equivalent to the Open Space Reserve proposed by the Project, does not border on Grant Avenue, and thus would not provide a view corridor area equivalent to the that defined in the Project Land Use Diagram. The development of large expanses of ranchette-type homes would convert land from a purely rural, agricultural environment to an ex-urban, semi-rural appearance, which could be seen as a desirable compromise, combining the

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best of both urban and rural development qualities. The RDP would incorporate the same policies as the proposed Project, to promote preservation of visual and scenic qualities and design guidelines to be developed for enhancement of the scenic highway function of Grant Avenue, but the specific design guidelines are not developed as yet, and the mitigating effect cannot be fully determined. **The impact would be significant.**

b. Light and Glare Considerations

Light/glare impacts would be reduced as a function of lower-density development over a larger area than envisioned under the EGP.

Alternative V, the RDP, would have moderately less effect as the proposed Project on light and glare, but would contribute to the regional, cumulative loss of night sky clarity. The RDP Land Use Diagram designations would result in about the same potential for commercial and industrial lighting which would be disruptive to residential areas, and no policies could be adopted from the Project into the RDP for mitigation of this impact. **The regional impact on night sky clarity, and potentially on residential night time glare, would be significant.**

c. Conversion of Agricultural Land

Although much of the land currently in agricultural production in the North Area would continue to be nominally used for agriculture after conversion to "ranchettes", the RDP would eliminate commercially-viable agricultural operations from existing farmlands. Very low density development would leave areas of open space between "ranchettes", but would represent an overall conversion of agricultural land to urban uses. **The conversion of agricultural land to urban uses would have a significant, cumulative, regional economic impact.**

The RDP proposes very low density residential development adjacent to active agricultural land, which would result in a relatively lower probability of conflicts between the two uses than with the land use configuration of the proposed Project. However, in the same manner as the proposed Project, the RDP does not establish appropriate buffer zones or procedures to resolve conflicts. **The potential for urban-agricultural conflicts would be a significant impact on the continued viability of surrounding farmlands.**

d. Cultural/Archaeological Resources

The risk of disturbing sensitive archaeological sites would be generally similar to that under the Project, which is limited, but not unforeseen. The RDP incorporates the policies of the Project addressing the need to protect archaeological sites through consultation with specialists in the

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field, and initiating other protective procedures. **The potential for destruction or overcovering of important archaeological sites in the Winters area is not a significant impact.**

The RDP incorporates the policies of the proposed Project with regard to historic preservation and rehabilitation. **The potential impact on historic architectural and related resources would not be significant.**

D. ALTERNATIVE VI - COMPACT DEVELOPMENT PLAN

Alternative VI is intended to reflect the evaluation of the environmental impacts of the proposed Project, and each of the Alternatives, and to configure land uses and public improvements in a manner which avoids the identified significant impacts of the Project. The land use pattern of the Compact Development Plan (CDP) is primarily directed towards avoiding significant impacts on the conversion of agricultural land, conflicts between urban and agricultural land uses, potential loss of threatened species habitat, drainage problems, water demand, the provision and expense of public facilities (including emergency services, parks, schools, roadways and other infrastructure), regional air quality deterioration, and some noise conditions. This Alternative is also intended to expand the variation between all the Alternatives, and to present an "Environmentally Superior" Alternative that serves the purpose of the California Environmental Quality Act's requirement that alternatives discussed in an EIR should "be capable of eliminating any significant adverse environmental effects..." (Section 15126 (d)(3)).

However, because of the particularly conceptual nature of this Alternative, the level of detail in its evaluation will be limited. This is also due to the obvious inability to simultaneously determine the significant impacts of the Project and a range of alternatives, and to devise a conceptual alternative which must be based on the complete analysis of the Project and the Alternatives.

The CDP, as conceptually shown in **Figure 65**, would utilize a substantially smaller portion of the planning area, leaving approximately 600 acres in the area north of County Road 33 (and its extended alignment) in its current condition as agricultural (or potentially agricultural) land. While the development area would be reduced, the planned density would be dramatically increased in order to enable the city to increase to a population of about 12,500 persons, or the same as the proposed Project.

The development of high density residential areas in the Central Business District, and in three new "Village" clusters in relative proximity to the CBD, would accommodate the majority of the new dwelling units. The CBD is expected to be able to add about 400 new units, at densities of up to 26 units per acre, while each of the Villages would have approximately 700 dwelling units, at average densities between 10 and 15 units per acre. An estimated 400 conventional single family homes, could be developed in the northwest corner of the city, at an average of 6 units per acre.

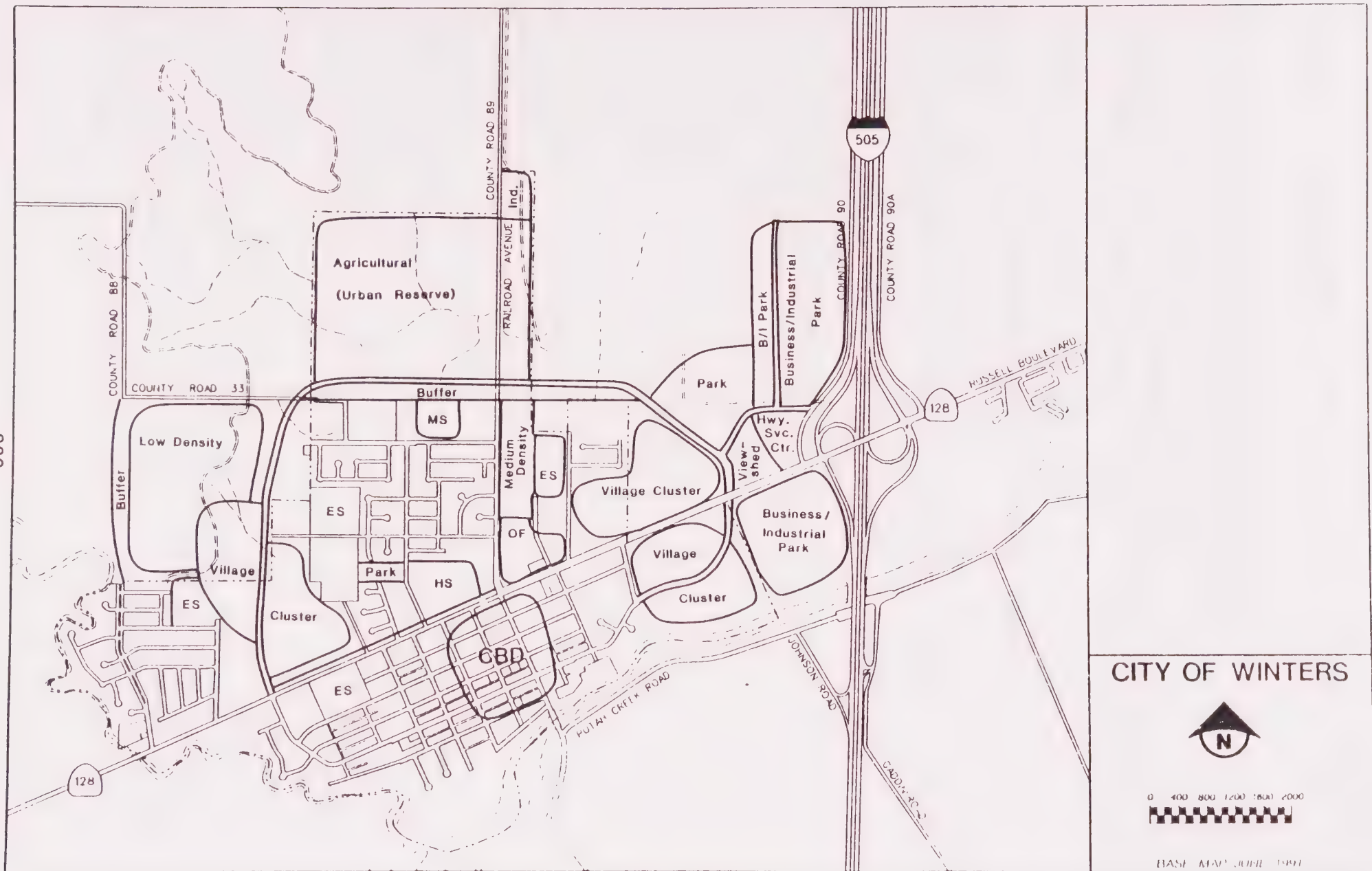


Figure 65
LAND USE DIAGRAM : ALTERNATIVE VI
 Draft General Plan EIR

BASE MAP: JUNE 1991

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Although these higher densities would likely engender smaller household sizes, assuming a standard 2.8 persons per household, these 2,900 units could accommodate a population of about 8,000 persons, which would increase Winters' population to about 12,500 persons.

New commercial businesses would be concentrated in the CBD, and in two business park, or light industrial centers on the eastern edge of the city. General commercial retail services would be located within the Village clusters, with a variety of neighborhood parks, plazas, common open spaces and community gardens intermixed with the residential uses, many of which would be located on upper floors of commercial buildings.

The circulation system would essentially merge the concept of the Main Street Loop road with County Road 33 into one route, splitting off from Grant Street close to I-505 to serve as an east-west arterial. This roadway would be separated from the city by a broad buffer area serving a combination of purposes: isolation of traffic noise; bicycle and pedestrian paths; passive recreation; open space and groundwater recharge; a drainage channel for areas presently with the 100-year flood plain; and reduction in potential conflicts between urban and rural land uses.

1. Land Use and Housing

a. Pattern of Development

This Alternative would have the least outward growth of all the Alternatives, and would substantially reduce the amount of infrastructure required to be added to the city, instead promoting concentrated infill development. Policies regarding the extension of urban services to promote their efficient use, would be identical to those of the Project (Alternative I), and thus **the impact would not be significant.**

b. Population Increase

The population increase under Alternative VI would be identical to that of the proposed Project, and the policies requiring the approval of projects to be consistent with the city's ability to serve an expanding population, are also identical to Alternatives I and II. **The impact on the pace of population increase would be avoided.**

c. Housing Density

The Compact Development Plan would concentrate housing within relatively very small areas, such as the Village clusters, and would thereby require the lowest level of linear extensions of infrastructure, such as roads, water distribution lines, wastewater collection lines, stormwater drainage, and other utilities. This physical configuration would result in a very high level of ef-

iciency of public facilities and services, and reduce the need to discriminate between separate development proposals on the basis of their density. **The CDP would avoid this potentially significant impact.**

d. Housing Mixture and Affordability

Alternative VI would feature a variety of housing types within the city, and particularly within each of the Village clusters. The overall average Village densities would be between 10 and 15 units per acre, but portions within each would be characterized by zero-lot line single family homes, duplexes, townhomes, and mid-rise (three to six stories) condominium and apartment buildings, as well as dwelling units constructed on second and third levels above street-level retail shops and services (particularly in the Central Business District), intermixed with office uses on second-story levels. Conventional single family homes in the northwestern area of the city, and in a limited number of other areas would add to the variety of housing options available. This range of housing types would have high potential for the City to meet the housing objectives defined by SACOG for housing affordable to each of the four income groups, because of reduced land, public service and infrastructure costs. Allowance for very high densities in small areas could substantially reduce the initial costs for development of assisted housing for very low income households. **The potential impact on housing affordability would be avoided.**

e. Urban Form

The CDP Alternative would represent a substantial change in the form of the city, because it alone among the Alternatives would have an effect on the vertical shape of the city, by introducing mid-rise condominium and apartment buildings, and potentially similar office or mixed-use buildings. The configuration of uses within the Villages would promote pedestrian circulation, and reduce the need for vehicular trips within the city. However, the density represented by Alternative VI would result in smaller open space areas, such as plazas and mini-parks, and a substantial reduction in the ratio of private yards to residents, which could be a constraint on individual pursuits (e.g., gardening, workshops, car maintenance, etc.). These activities would have to be conducted in a more public, communal setting. The promotion of pedestrian access within the Villages, and in the CBD, however, may be less compatible with traffic conditions on Grant Avenue, and pedestrian access from one Village to another. However, the overall form would still function for effective access between uses, and the use of public areas for private activities could be socially beneficial. **The impact on town form would not be significant.**

f. Town Character

Density of the type envisioned by Alternative VI would alter the character of Winters in a very significant manner, and would establish a more urbanized, concentrated pattern of land uses,

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typical of central urban neighborhoods of large cities. The elimination of private yards and open space (e.g. side and front yards) for most new potential residents, and the higher densities would be perceived as distinctly urban, *city*-like development that would be uncharacteristic of a small town. The emphasis on pedestrian access could have a potentially unique appeal to visitors and tourists, but a change to a tourist-based economy in Winters would be another type of significant change in the town character.

The CDP would promote preservation of agricultural lands and the regional importance of agriculture in a way that the other Alternatives do not (i.e., the minimal conversion of agricultural land), would retain the Agricultural School, and incorporate other policies of the proposed Project for a right-to-farm ordinance and farmers market. However, the change in town character to a more urbanized environment **would be a significant impact.**

The CDP would incorporate the same policies as the proposed Project for the process of conversion of agricultural land to urban uses. The impact would not be significant.

h. Yolo County General Plan: Scenic/Open Space/Trail Corridors

The CDP incorporates the same policies as the proposed Draft General Plan (Alternative I) for promotion of the scenic corridor function of Highway 128 through Winters, with design guidelines and bicycle paths. **The impact would not be significant.**

2. Traffic and Circulation

The transportation impacts of this alternative would be similar to those of the Project, with the exception that traffic volumes on Grant Ave. west of the East Main Street intersection would be increased. Traffic volumes on Grant Avenue at the Interstate 505 interchange would be similar to those anticipated with the project. In order to accommodate these volumes all of Grant Avenue in Winters would have to be a full four-lanes facility. This would necessitate widening the section of Grant Avenue between Railroad Avenue and the West Main Street intersection. In general higher density development promotes reduced vehicular travel because it is easier to serve by transit. It also facilitates walking trips and bicycle travel because more uses are located within a small area. The extent of those positive benefits could not be expected to significantly reduce anticipated traffic volumes. **The roadway network of Alternative VI would not result in significant traffic congestion.**

3. Infrastructure Services and Facilities

a. Water Supply

Water use in this alternative would be altered as compared to the Project. The area that would remain irrigated agriculture would use about the same amount of water per acre whether it is irrigated or developed as residential properties. Land to the north west of the city that is currently fallow would result in a net savings of water. Increasing housing densities results in slightly higher per acre water use. Over all, the effect of this alternative is a reduced water demand. Distribution system piping would be reduced due to the reduced area of land to be served. Other infrastructure requirements would stay about the same. The CDP incorporates the same policies as the Draft General Plan. **The potential impact on water consumption for this alternative is less than the Project but both are considered less than significant.**

b. Wastewater Treatment

Alternative VI has the same population as Alternative I (12,500). Treatment facilities are general sized on a per capita basis. Therefore, the treatment plant, pump station, and force main would remain the same. Additional piping to a Putah Creek outfall would need to be constructed for this alternative. The collection system piping would again be reduced due to reduced area of land to be developed. The same policies and implementation strategies as the Project would be utilized. **The impact of this alternative would not be significant.**

c. Storm Drainage

The storm drainage system could be substantially altered in this alternative. The Northern Storm water Detention Pond and the Winters Detention Pond could both be eliminated. In order to eliminate these facilities the business/industrial park and the northern portion of the loop road would need to be elevated a minimum of 1 foot above the 100 year flood plain. An outfall would still be required to convey storm water and sewage effluent to Putah Creek. The policies and implementation of the Project would be changed to reflect the elimination of the ponds and the addition of the elevated business/industrial park and loop road. **The impact of this alternative is less than Alternative I due to not building the two ponds, but the impact of either alternative would not be significant.**

4. Fiscal/Public Financing Considerations

Under Alternative VI, the Compact Development Plan, the population growth would be the same as for the proposed Project. However, the location of development would be substantially different. From a fiscal standpoint the location of development is not as important as the amount of

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development. The Compact Development Plan would, however, reduce the number of net new street miles to the City, and thus, reduce street maintenance costs. Most likely a fire station with a full-time staff would still be required and/or desired under this Alternative; this has been assumed for this analysis.

Alternative VI would have a net negative fiscal balance of about \$1.3 million at 2010. This increase or worsening of the net fiscal balance can be attributed to the fact that under this Alternative, about 62 percent of the new development would be in the City's proposed Redevelopment Area; thus, the City would not receive property tax revenues from this amount of development. For this analysis, it is estimated that about 1,800 of the total 2,900 dwelling units and one of the two business industrial parks would be within the Redevelopment Area's boundaries. This figure could change depending on the actual configuration of new projects and the final General Plan, if adopted with this scenario.

If the City were not to adopt the Redevelopment Plan and the 18,000 units and business park were to generate property tax revenues that could be available to fund public services, Alternative VI would have a net negative fiscal balance of about \$550,000, which is a substantial improvement over \$1.3 million. However, it should be noted that if the City does not adopt the Redevelopment Plan, capital improvements expected to be funded with tax increment revenues would probably have to be funded through an increase in developer fees. Even though there would be a reduction in the amount of capital facilities required under this Alternative as opposed to the proposed Project, some improvements would be required. **A net negative fiscal balance of either \$1.3 million or \$550,000 is considered a substantial adverse effect that would require additional fiscal measures.**

Mitigation measures suggested for the proposed Project would also be applicable to this alternative.

An additional mitigation measure the City Council should consider if it chooses to adopt this Alternative is as follows:

The City Council should reconsider adopting the proposed Redevelopment Plan and consider the financial implications of this Alternative.

5. Biotic Considerations

Under this Alternative, future growth would be concentrated in the vicinity of existing development along the I-505 and Highway 128 corridors, reducing the conversion of agricultural habitat to urban and suburban uses. Approximately 600 acres to the north of County Road 33 would be retained in agricultural use, maintaining the existing wildlife habitat value of this portion of the

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planning area. This would include parcels with suitable foraging habitat for Swainson hawk which would be lost under planned future growth associated with the Project. For the most part, potential jurisdictional wetlands along Moody Slough would no longer be affected by future growth, due to their occurrence outside the limits of development defined by Alternative VI. Although this Alternative would serve to reduce the loss of existing agricultural habitat in the Winters vicinity, and with implementation of necessary mitigation, and would be considered the "Environmentally Superior" Alternative, **the overall, cumulative impact of habitat conversion and loss of foraging habitat for special status taxa of concern would be significant.**

6. Noise Considerations

The CDP Alternative Land Use Diagram (concept plan) proposes to develop the downtown core area more intensively, and construct new village clusters along Grant Avenue/State Route 128. This development plan would introduce a lot of new housing in areas already impacted by noise (along State Route 128). Significant noise impacts would be anticipated for existing and proposed noise sensitive land uses (residences, schools, hospitals and parks) in the CBD and along SR-128. Schools proposed along State Route 128 would be located in areas exposed to noise levels clearly incompatible with such uses. Intensive development in the downtown core area would expose more people to high noise levels. The rest of the planning area would experience a noise exposure similar to the noise exposure projected for the preferred alternative.

The impacts of Alternative VI would be consistent with the preferred alternative (the Project, Alternative I). Noise sensitive developments in noise impacted areas would require acoustic assessments at the development stage and noise reduction techniques (soundwalls, buffer zones, architectural design, etc.) should be addressed to mitigate potential noise impacts. This proposal would create a more urbanized community and a noise environment inherent of such an urbanized setting. **The noise impact would be significant.**

7. Air Quality

The nature of construction impacts of the CDP would be similar to that of the proposed General Plan, but the extent of construction would be reduced as less land area would be involved. The potential for construction dust nuisance could actually be higher, however, since the higher densities place more people in proximity to construction.

The potential for residential/agricultural air quality conflicts would be less for development under this alternative because the smaller urbanized area reduces the interface between agricultural and residential uses.

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Compact development has several inherent characteristics that reduce or potentially reduce local and regional air quality impacts from vehicle trips. The higher densities proposed under this alternative would support ridesharing, transit and other forms of non-auto travel better than the proposed General Plan. The high density residential areas and "Village" clusters envisioned under this alternative would provide a more mixed pattern of land uses that would reduce distances between homes and commercial uses, promoting pedestrian and bicycle modes of travel. These factors have the potential to reduce the local and regional impacts of development by perhaps 5 to 10 percent below that of the proposed General Plan.

8. Other Considerations: Conversion of Agricultural Land

The Compact Development Plan would leave approximately 500 acres of the area within the Urban Limit Line in productive agricultural use, or about four-fifths of the total area which would be developed under the Draft General Plan, or under any of the other Alternatives. **The estimated 50 to 100 acres which would be developed under the CDP is considered to be "Environmentally Superior," but on a regional, cumulative basis, would be significant.**

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XVI. PARTICIPANTS AND REFERENCES

A. ENVIRONMENTAL IMPACT REPORT AUTHORS

This Environmental Impact Report was prepared for the City of Winters by the firm of **Duncan & Jones**, Urban and Environmental Planning Consultants, in affiliation with Wilbur Smith Associates, Inc., Traffic and Transportation Consultants; CH₂M HILL, Engineers, Planners, Economists and Scientists; Economic & Planning Systems, Land Economics and Public Finance Consultants; Environmental Collaborative, Biologic and Wildlife Consultants; Illingworth & Rodkin, Inc., Acoustical Engineers; and Donald Ballanti, Certified Consulting Meteorologist.

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C. REFERENCES

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Appendix A:

**INITIAL STUDY,
NOTICE OF PREPARATION,
LETTERS OF COMMENT**

NOTICE OF PREPARATION

TO: _____

FROM: City of Winters
318 First Street
Winters, CA 95694

SUBJECT: Notice of Preparation of Draft Environmental Impact Report

The City of Winters will be the Lead Agency and will prepare an Environmental Impact Report for the project identified below. We need to know the views of your agency as to the scope and content of the environmental information which is germane to your agency's statutory responsibility in connection with the proposed project. Your agency will need to use the EIR prepared by our agency when considering your permit or other approval for the project.

The project description, location, and the probable environmental effects are contained in the attached materials. A copy of the Initial Study X is, is not attached.

Due to the time limits mandated by State law, your response must be sent at the earliest possible date but not later than 30 days after receipt of this notice.

Please send your response to the Community Development Department at the address shown above. We will need the name of a contact person in your agency.

Project Title: Winters General Plan Revision

Project Applicant, if any: City of Winters

DATE 7/22/91 Signature _____

Title Perry Beck, City Manager

Telephone (916) 795-4910

Reference: California Administrative Code, Title 14, Sections 15082(a), 15103, 15375.

July 1991

Project Title: Winters General Plan Revision

Project Description:

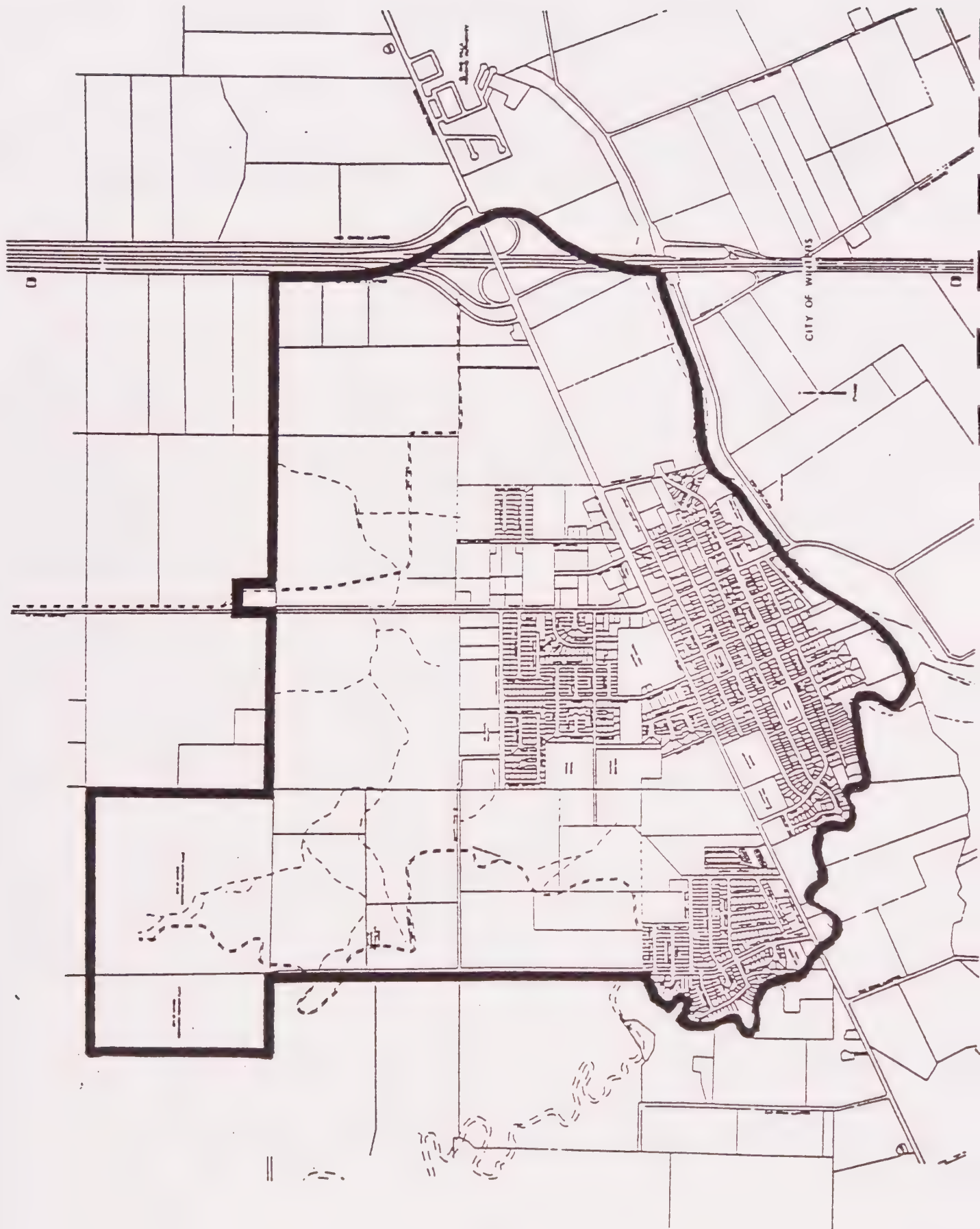
The Winters General Plan is undergoing a comprehensive revision and all elements are under review. The revision covers the area within the current 20 year sphere (see attached map) and seeks to establish a 20 year growth plan that could triple the existing population of approximately 4,700 people. As part of the General Plan revision, the City will be adopting water, wastewater, storm drain, and circulation master plans as well as development fees and a financing plan which could include pending assessment districts, bondings and other financing methods.

The General Plan alternatives being evaluated include the following:

- I. Preferred alternative: Modified City Council work plan, approximately 12,000 to 12,500 population, 2965 units or fewer within the existing sphere of influence with space reserved for a public/quasi-public uses (ie, a potential future golf course). Identified urban study area around sewer plant.
- II. Modified council workplan, approximately 14,000 population within the existing Sphere of influence, with space reserved for public/quasi-public uses. Identified urban study area around sewer plant.
- III. North Area Specific Plan as a General Plan Amendment overlayed on the existing General Plan which provides for a population of 14,000 .
- IV. No project (existing General Plan) which provides for a population of 15,000 .
- V. Reduced urbanization alternative which provides for a population of 11,000 .

- VI. Additional alternative (not yet specified) intended to lessen or avoid significant effects associated with the preferred alternative.

The City will evaluate alternatives I and II in equal levels of detail. Alternatives III, IV, and V will involve a lesser review. Alternative VI is a plan that may arise out of the studies on the other alternatives in response to environmental concerns.



**ENVIRONMENTAL CHECKLIST FORM
(To Be Completed by City of Winters)**

I. BACKGROUND

1. Name of Proponent: **City of Winters**
2. Address and Phone Number of Proponent:

**Perry Beck, City Manager
City of Winters
318 First Street
P.O. Box 457
Winters, CA 95694**
3. Date Checklist Submitted: **July 18, 1991**
4. Agency Requiring Checklist: **City of Winters**
5. Name of Proposal, if applicable:

General Plan, City of Winters

II. ENVIRONMENTAL IMPACTS

(Explanations of all "yes" and "maybe" answers are required on attached sheets.)

	<u>Yes</u>	<u>Maybe</u>	<u>No</u>
1. <u>Earth</u> . Will the proposal result in:			
a. Unstable earth conditions or changes in geologic substructures?	—	<u>X</u>	—
b. Disruptions, displacements, compaction or overcovering of the soil?	<u>X</u>	—	—
c. Change in topography or ground surface relief features?	<u>X</u>	—	—
d. The destruction, covering or modification of any unique geologic or physical features?	—	—	<u>X</u>
e. Any increase in wind or water erosion of soils, either on or off the site?	—	<u>X</u>	—

ENVIRONMENTAL CHECKLIST FORM

	<u>Yes</u>	<u>Maybe</u>	<u>No</u>
f. Changes in deposition or erosion of beach sands, or changes in siltation, deposition or erosion which may modify the channel of a river or stream or the bed of the ocean or any bay, inlet or lake?	—	<u>X</u>	—
g. Exposure of people or property to geologic hazards such as earthquakes, landslides, mudslides, ground failure, or similar hazards?	—	<u>X</u>	—
2. <u>Air</u> . Will the proposal result in:			
a. Substantial air emissions, or deterioration of ambient air quality?	<u>X</u>	—	—
b. The creation of objectionable odors?	—	—	<u>X</u>
c. Alteration of air movement, moisture, or temperature, or any change in climate, either locally or regionally?	—	<u>X</u>	—
3. <u>Water</u> . Will the proposal result in:			
a. Changes in currents, or the course of direction of water movements, in either marine or fresh waters?	<u>X</u>	—	—
b. Changes in absorption rates, drainage patterns, or the rate and amount of surface runoff?	<u>X</u>	—	—
c. Alterations to the course or flow of flood waters?	<u>X</u>	—	—
d. Change in the amount of surface water in any water body?	—	<u>X</u>	—
e. Discharge into surface waters, or in any alteration of surface water quality, including but not limited to temperature, dissolved oxygen or turbidity?	—	<u>X</u>	—
f. Alteration of the direction or rate of flow of ground waters?	—	<u>X</u>	—

ENVIRONMENTAL CHECKLIST FORM

	<u>Yes</u>	<u>Maybe</u>	<u>No</u>
g. Change in the quantity of ground waters, either through direct additions or withdrawals, or through interception of an aquifer by cuts or excavations?	—	<u>X</u>	—
h. Substantial reduction in the amount of water otherwise available for public water supplies?	—	—	<u>X</u>
i. Exposure of people or property to water related hazards such as flooding or tidal waves?	—	<u>X</u>	—
4. <u>Plant Life</u> . Will the proposal result in:			
a. Change in the diversity of species, or number of any species of plants (including trees, shrubs, grass, crops, and aquatic plants)?	<u>X</u>	—	—
b. Reduction of the numbers of any unique, rare or endangered species of plants?	—	<u>X</u>	—
c. Introduction of new species of plants into an area, or in a barrier to the normal replenishment of existing species?	—	<u>X</u>	—
d. Reduction in acreage of any agricultural crop?	<u>X</u>	—	—
5. <u>Animal Life</u> . Will the proposal result in:			
a. Change in the diversity of species, or numbers of any species of animals (birds, land animals including reptiles, fish and shellfish, benthic organisms or insects)?	<u>X</u>	—	—
b. Reduction of the numbers of any unique, rare or endangered species of animals?	—	<u>X</u>	—
c. Introduction of new species of animals into an area, or result in a barrier to the migration or movement of animals?	—	<u>X</u>	—

ENVIRONMENTAL CHECKLIST FORM

	<u>Yes</u>	<u>Maybe</u>	<u>No</u>
d. Deterioration to existing fish or wildlife habitat?	—	<u>X</u>	—
6. <u>Noise</u> . Will the proposal result in:			
a. Increases in existing noise levels?	<u>X</u>	—	—
b. Exposure of people to severe noise levels?	—	—	<u>X</u>
7. <u>Light and Glare</u> . Will the proposal produce new light or glare?	<u>X</u>	—	—
8. <u>Land Use</u> . Will the proposal result in a substantial alteration of the present or planned land use of an area?	<u>X</u>	—	—
9. <u>Natural Resources</u> . Will the proposal result in:			
a. Increase in the rate of use of any natural resources?	<u>X</u>	—	—
10. <u>Risk of Upset</u> . Will the proposal involve:			
a. A risk of an explosion or the release of hazardous substances (including, but not limited to, oil, pesticides, chemicals or radiation) in the event of an accident or upset conditions?	—	<u>X</u>	—
b. Possible interference with an emergency response plan or an emergency evacuation plan?	—	—	<u>X</u>
11. <u>Population</u> . Will the proposal alter the location, distribution, density, or growth rate of the human population of an area?	<u>X</u>	—	—
12. <u>Housing</u> . Will the proposal affect existing housing, or create a demand for additional housing?	—	<u>X</u>	—

ENVIRONMENTAL CHECKLIST FORM

	<u>Yes</u>	<u>Maybe</u>	<u>No</u>
13. <u>Transportation/Circulation</u> . Will the proposal result in:			
a. Generation of substantial additional vehicular movement?	<u>X</u>	—	—
b. Effects on existing parking facilities, or demand for new parking?	<u>X</u>	—	—
c. Substantial impact upon existing transportation systems?	<u>X</u>	—	—
d. Alterations to present patterns of circulation or movement of people and/or goods?	<u>X</u>	—	—
e. Alterations to waterborne, rail or air traffic?	—	<u>X</u>	—
f. Increase in traffic hazards to motor vehicles, bicyclists or pedestrians?	—	<u>X</u>	—
14. <u>Public Services</u> . Will the proposal have an effect upon, or result in a need for new or altered governmental services in any of the following areas:			
a. Fire protection?	<u>X</u>	—	—
b. Police protection?	<u>X</u>	—	—
c. Schools?	<u>X</u>	—	—
d. Parks or other recreational facilities?	<u>X</u>	—	—
e. Maintenance of public facilities, including roads?	<u>X</u>	—	—
f. Other governmental services?	<u>X</u>	—	—
15. <u>Energy</u> . Will the proposal result in:			
a. Use of substantial amounts of fuel or energy?	—	<u>X</u>	—

ENVIRONMENTAL CHECKLIST FORM

	<u>Yes</u>	<u>Maybe</u>	<u>No</u>
b. Substantial increase in demand upon existing sources of energy, or require the development of new sources of energy?	—	—	<u>X</u>
16. <u>Utilities</u> . Will the proposal result in a need for new systems, or substantial alterations to utility services?			
a. Power or natural gas?	<u>X</u>	—	—
b. Communications systems?	<u>X</u>	—	—
c. Water?	<u>X</u>	—	—
d. Sewer?	<u>X</u>	—	—
e. Storm water drainage?	<u>X</u>	—	—
f. Solid waste and disposal?	<u>X</u>	—	—
17. <u>Human Health</u> . Will the proposal result in:			
a. Creation of any health hazard or potential health hazard (excluding mental health)?	—	—	<u>X</u>
b. Exposure of people to potential health hazards?	—	—	<u>X</u>
18. <u>Aesthetics</u> . Will the proposal result in the obstruction of any scenic vista or view open to the public, or will the proposal result in the creation of an aesthetically offensive site open to public view?	—	<u>X</u>	—
19. <u>Recreation</u> . Will the proposal result in an impact upon the quality or quantity of existing recreational opportunities?	—	<u>X</u>	—
20. <u>Cultural Resources</u> .			
a. Will the proposal result in the alteration of or the destruction of a prehistoric or historic archaeological site?	—	<u>X</u>	—

ENVIRONMENTAL CHECKLIST FORM

	<u>Yes</u>	<u>Maybe</u>	<u>No</u>
b. Will the proposal result in adverse physical or aesthetic effects to a prehistoric or historic building, structure, or object?	___	<u>X</u>	___
c. Does the proposal have the potential to cause a physical change which would affect unique ethnic cultural values?	___	___	<u>X</u>
d. Will the proposal restrict existing religious or sacred uses within the potential impact area?	___	___	<u>X</u>
 21. <u>Economics.</u>			
a. Will the economic base of the area be adversely affected by the project?	___	<u>X</u>	___
b. Will the project help diversify the economic base within the city?	___	<u>X</u>	___
c. Will the increased demand for fire, police and other services cost more than the increased revenue generated by the project?	___	<u>X</u>	___
 22. <u>Mandatory Findings of Significance.</u>			
a. Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	___	<u>X</u>	___

ENVIRONMENTAL CHECKLIST FORM

- | | <u>Yes</u> | <u>Maybe</u> | <u>No</u> |
|---|------------|--------------|-----------|
| b. Does the project have the potential to achieve short-term, to the disadvantage of long-term, environmental goals? (A short-term impact on the environment is one which occurs in a relatively brief, definitive period of time while long-term impacts will endure well into the future.) | — | <u>X</u> | — |
| c. Does the project have impacts which are individually limited, but cumulatively considerable? (A project may impact on two or more separate resources where the impact on each resource is relatively small, but where the effect of the total of those impacts on the environment is significant.) | — | <u>X</u> | — |
| d. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly? | — | — | <u>X</u> |

III. DISCUSSION OF ENVIRONMENTAL EVALUATION

(See attached narrative description of environmental impacts.)

IV. DETERMINATION

On the basis of this initial evaluation:

I find the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

Date

Signature

For: City of Winters

ENVIRONMENTAL CHECKLIST FORM
Attachment

III. DISCUSSION OF ENVIRONMENTAL EVALUATION

1. Earth

- a. Potential development, possibly including recreational and/ or residential uses, of a former landfill site, may pose risks or hazards from settling of landfill materials.
- b. Development in accordance with the changes being considered in the General Plan will require compaction and alteration of topsoils for street paving, utilities, construction sites, and for some recreational, landscaped or open areas.
- c. Changes in topography will be likely to occur with respect to grading of development sites to provide drainage, other infrastructure, or to facilitate construction.
- d. There are no known unique geological or physical features in the land area of concern which would be modified or eliminated by urban development in accordance with the General Plan.
- e. Development consistent with General Plan provisions may alter soil erosion patterns within the area and possibly beyond the area, due to increased surface runoff, and controlled drainage patterns. Soil erosion caused by wind may be altered by the changes in vegetation accompanying development.
- f. General Plan provisions may affect existing runoff patterns and, in turn, have impacts upon the rates of flow and affect the channels of waterways.
- g. Development in accordance with the General Plan could result in potential earthquake hazards because the city is adjacent to the Midland fault zone, which has the potential of causing moderate to serious groundshaking.

2. Air

- a. Air quality would be altered primarily by the pollutants generated by increased traffic volumes, and secondarily by potential commercial and industrial activity. Construction activity could create short-term dust problems, which may be mitigated by water sprays.

- b. Any new commercial or industrial development that may be designated by the General Plan will be subject to conditions limiting the possible emission of objectionable odors.
- c. Urban development typically increases ambient air temperature, due to greater heat reflection from surfaces, such as pavements and rooftops. The potential exists for new recreation area water bodies to modify local climatic conditions.

3. Water

- a. Urban expansion requires development of new water resources, which may be depleted in some degree by additional usage resulting from new development and population growth. Available surface and groundwater sources may establish limits on ultimate urban development. Increased capacity in water storage is a potential means of accommodating the expanded need for water.
- b. Increases in the area of paved surfaces, roofing and landscaping treatments, will increase runoff to limited areas, and expanded storm drainage provisions will alter the replenishment of groundwater.
- c. Flood water flows may be altered, and possibly increased in some locations.
- d. Creeks and surface water bodies are likely to absorb additional surface runoff that otherwise would be absorbed by groundwater. Newly developed areas may incorporate lakes or other water features.
- e. Urban runoff into surface waters may increase the temperature, and affect their chemical character and level of suspended material.
- f. Groundwater flows may be changed by decreases in replenishment, and other effects.
- g. In addition to slower replenishment of groundwaters, possible development of a new recreational lake may affect groundwaters, and possibly increase groundwater replenishment in some areas, or offset groundwater depletion.
- h. The use of water by potential development to be designated in the General Plan will be served by additional sources of supply, and will not reduce the volume of water presently available for public use.

- i. There is potential for increases in flood water levels in some areas, but mitigation measures such as storm drainage and other proposed flood control measures are expected to be adequate to prevent adverse flooding conditions.

4. Plant Life

- a. Development will increase levels of non-native plant materials and reduce the native plant population.
- b. Development could displace the adobe lily (*Fritillaria pluriflora*), which is a candidate species (Category 2) for Federal protection, and which may occur in the region. Sightings of this species in the area, however, are neither recent or reliable.
- c. Non-native plants will replace primarily agricultural crops, and natural vegetation will also be displaced due to development in accordance with the General Plan. Outside the planning area, existing crops and natural vegetation should not be affected.
- d. Agricultural crops, including fruits, nuts and grains, are likely to be displaced by urban expansion.

5. Animal Life

- a. Within the planning area reduction in animal species diversity can be expected to result from expanded urban development in accordance with the General Plan provisions.
- b. Development will result in elimination of foraging habitat of a state-listed threatened raptor species, Swainson's Hawk, (*Buteo swainsoni*), with potential adverse effects on its numbers. The Valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*), which occurs along riparian corridors such as Putah and Dry Creeks, is on federal lists of threatened species, and may be adversely impacted by development adjacent to the Creeks.
- c. Migration of wildlife, including birds and mammals, may be marginally restricted by new urbanization in some areas. New species (e.g. domestic pets) will be introduced in presently undeveloped or natural areas.
- d. The quality and character of additional urban runoff may pose new levels of hazards for fish and other riparian life, and limited reduction in habitat for native animals may occur.

6. Noise

- a. Increased traffic and expanded urban activity will result in increased noise levels.
- b. Development permitted by the General Plan will not result in exposure of people to severe noise levels.

7. Light and Glare

Street lighting, vehicular lights, commercial and interior lights will be added to the local environment.

8. Land Use

The General Plan can be expected to result in changes to existing land use designations in various areas, may increase the area of agricultural land converted to urban use and may result in substantial increases in the future area of urban development.

9. Natural Resources

Development in accordance with the General Plan will result in increased use of water resources, and may increase the conversion of agricultural land to urban uses. New construction will consume lumber, steel, sand, gravel, concrete, and other mineral and petrochemical products. However, the overall resource depletion rate is not expected to be substantially changed as a result of the project.

10. Risk of Upset

- a. Possible development on the former landfill site, which may contain hazardous or toxic materials, may increase the risk of a release of such materials into the environment under adverse conditions such as a flood or earthquake, or from leaching effects. New industrial development may introduce other risks of releases of harmful contaminants.
- b. The General Plan will not permit development which would interfere with emergency response planning.

11. Population

Increases in city population may be significant and may have effects on the rate of growth for a lengthy period of time. Density within the planning area will increase, and in some areas, higher densities than exist presently in the city may result.

12. Housing

New residential development consistent with the General Plan will respond to demands for additional housing, and may affect existing housing in terms of market value and sales activity. The General Plan provides the blueprint for Winters to change from a small town to a larger community, and may result in sustained long-term demand for additional residential development.

13. Transportation/Circulation

- a. Increase in both private and commercial vehicular activity can be expected from residential and commercial development permitted by the General Plan.
- b. New commercial activity will require the provision of parking facilities/areas, and new residents may increase the need for parking provisions in existing commercial areas.
- c. Existing streets and roads will experience increased usage. Analyses of traffic circulation and street improvement provisions will address these changes.
- d. Existing circulation patterns may be affected through increased traffic volumes resulting from permitted new development.
- e. Industrial development provisions included in the General Plan may expand demand for freight service. Economic growth in this area may result in increased demand for air service at local airfields and the regional airport in Sacramento.
- f. Safety hazards to vehicles, pedestrians and bicyclists may rise with the increased traffic volumes.

14. Public Services

- a. Expansion of the service area and capabilities of the municipal fire protection district can be anticipated. New personnel, equipment and facilities will be needed, requiring increased capital and operating expenditures.
- b. Expansion in police protection will be required to serve population increases considered necessary, and funding of additional personnel and equipment will be required.

- c. The school district will require new and expanded facilities, increases in personnel and operating budgets.
- d. The development guided by the plan will require new park and recreational areas/facilities.
- e. Maintenance of existing and proposed streets can be expected to require an expanded capability by the municipal Public Works Department.
- f. Governmental services overall will require expansion and expenditures in areas such as administrative and judicial operations and other services.

15. Energy

- a. Expanded urban areas and populations are likely to consume larger quantities of fuel and energy, and the plan may affect consumption levels.
- b. The urban development which may occur in conformance with the General Plan will not result in a substantial increase in demand for existing energy sources of energy, or require the development of new sources.

16. Utilities

- a. Urban growth will require expansion of electrical power and natural gas services.
- b. Telephone service will need to be extended.
- c. Extension of municipal water service, entailing increased capital and operational expenditures will be required for residential, commercial and institutional uses.
- d. Sewer lines will need to be extended, and sewage treatment/ effluent disposal facilities may need to be expanded, requiring new municipal expenditures.
- e. Development permitted in the Plan will require storm water drainage system expansion.
- f. Urban development will require expanded waste collection service and possibly additional expenditures for collector equipment (e.g. trucks) and solid waste disposal facilities.

17. Human Health

- a. No human health hazard is expected to result from the urban development that the General Plan would permit. Under normal operating conditions, new industrial development would not constitute a health hazard (See item 10, Risk of Upset).

- b. There are no existing health hazards which development in conformance with the General Plan would expose people to, nor would development result in new health hazards.

18. Aesthetics

Permitted development will transform the landscape from a primarily rural to an urban and suburban character, which may entail a loss of valued scenic vistas.

19. Recreation

The capacity of existing recreational areas and facilities may be over-burdened by increased population. New and additional facilities may mitigate such changes, however, and improve the overall quality and character of local recreational opportunities.

20. Cultural Resources

- a. The Planning Area of the General Plan may contain archaeological sites which could be disturbed or potentially damaged by future changes in land use permitted by the General Plan.
- b. Development consistent with the General Plan may disturb or damage archaeological structures or objects which may exist at subsurface levels within the Planning Area.
- c. The area affected by the General Plan is not characterized by any unique ethnic cultural values which would be damaged.
- d. There are no known existing sacred activities which urban development consistent with the General Plan would restrict or threaten.

21. Economics

- a. The agricultural economy may be adversely affected by the conversion of land to urban uses.
- b. Policies of the General Plan may provide opportunities for new economic activity which would diversify the existing economic base of the city.
- c. Revenue generated directly from permitted development may be inadequate to finance needed expansion of fire and police protection, and other public services in newly-developed areas. Expanding the capacity

of service delivery systems to accommodate growth designated in the General Plan will have fiscal and financing impacts requiring identification. Allocating the costs of growth to the benefited population and properties may have impacts on housing affordability and other implications.

22. Mandatory Findings of Significance

- a. The development anticipated in the General Plan may reduce the habitat of threatened species of wildlife (see items 4.b. and 5.b. above).
- b. Development as guided by the General Plan will possibly result in short-term changes, including benefits and hazards, that will result in irreversible long-term trends affecting environmental quality and natural resources.
- c. Individual policies or provisions of the General Plan may have limited immediate impact on specific environmental factors, but collectively may have a cumulative effect on the environment.

Winters General Plan
Environmental Impact Report NOP
Comment Checklist

12/1/88

Agency Receiving NOP

Commented

No Comment

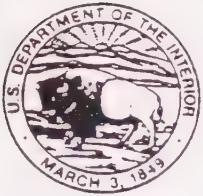
Yolo County Transit		
U.S. Burea of Reclamation		
Army Corps of Engineers		
Department of Agriculture		
Environmental Protection Agency		
U.S. Fish & Wildlife	X	
Federal Highway Administration		
Burea of Land Management		
Soil Conservation Service		
Sonic Cable T.V.		
Yolo County Flood Control		
Yolo County Community Development	X	
Yolo County Health Department	X	
Planning & Research *	X	
Solano County Planning		
Napa Planning Department		
Lake County Planning		
Colusa County Planning		
Sutter County Planning		
Sacramento Planning Department		
SACOG		
National Marine Fisheries		
Harold Anderson		
Sound Solutions		
Sutro & Company		

Winters General Plan
Environmental Impact Report NOP
Comment Checklist

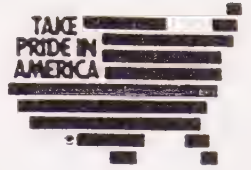
DUNCAN & JONES

Agency Receiving NOP Commented No Comment

Duncan & Jones		
Laurence Mintier & Associates		
Balfrey & Abbott		
Remy & Thomas		
Piedmont Associates		
John Wallace		
Economic & Planning Systems		
Pacific Gas & Electric Company		
Winters Fire Department		
Winters Police Department		
CH2M Hill		
LAFCO	X	
Air Pollution Control	X	
Yolo County Sheriff Department		
Winters Joint Unified School Dist.	X	
Abatement District		
Pacific Bell		
* Agencies sent NOP by Planning &		
Research		
Department of Conservation	X	
Department of Transportation	X	



United States Department of the Interior



FISH AND WILDLIFE SERVICE
Fish and Wildlife Enhancement
Sacramento Field Office
2800 Cottage Way, Room E-1803
Sacramento, California 95825-1846

In Reply Refer To:
PPN 1092

September 5, 1991

Mr. Perry Beck, City Manager
City of Winters
P. O. Box 457
Winters, CA 95694

RECEIVED DD (1 ha
SEP 18 1991 a copy
LINCOLN S. JONES PY ✓

Subject: Notice of Preparation of a Draft Environmental Impact Report;
Winters General Plan Revision, Yolo County, California

Dear Mr. Beck:

The Fish and Wildlife Service has reviewed the Notice of Preparation of a Draft Environmental Impact Report for the Winters General Plan Revision. These comments are intended to assist you in your review of the proposal, and will not take the place of any formal comments that may be required under the provisions of the Fish and Wildlife Coordination Act.

Attachments A and B provide general guidelines for identifying and mitigating project impacts to fish, wildlife, and their habitats. We encourage you to use these guidelines to develop a comprehensive environmental document that addresses these needs.

We appreciate the opportunity to comment on this proposal. If you have any questions regarding these comments, please contact Karen Miller at (916) 978-4613.

Sincerely,

Wayne S. White
Field Supervisor

2 Attachments

cc: RD (AFWE), FWS, Portland, OR
Dir., CDFG, Sacramento, CA
Reg. Mgr., CDFG, Reg. II, Rancho Cordova, CA
COE, Sacramento, CA

ATTACHMENT A

Endangered Species. This attachment identifies those listed, proposed, and/or candidate species that may occur in the proposed project area. Information concerning listed species is also attached. Information and maps concerning candidate species in California may be obtained from the California Natural Diversity Data Base, a program administered by the California Department of Fish and Game. Requests for information should be addressed to the Marketing Manager, California Department of Fish and Game, Natural Diversity Data Base, 1416 Ninth Street, Sacramento, California 95814. The marketing manager may be contacted by calling (916) 324-0562. You may request additional information from the Chief, California Department of Fish and Game, Non-Game Heritage Program, at (916) 324-8348.

Listed species are fully protected under the mandates of the Endangered Species Act (Act), as amended. Section 9 of the Act and its implementing regulations prohibit the "take" of a federally listed fish and wildlife species by any person, as defined by the Act. Take is defined by the Act "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect" any such species. Take may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding, or shelter (50 CFR § 17.3).

Take incidental to an otherwise lawful activity may be authorized by one of two procedures. If a Federal agency is involved with the permitting, funding, or carrying out of this project, initiation of formal consultation is required between that agency and the Service pursuant to Section 7 of the Act if it is determined that the proposed project may affect a federally listed species. Federal agencies must confer if they determine that the continued existence of a proposed species may be jeopardized by the project. Such consultation or conference could result in a biological opinion that addresses anticipated effects of the project to listed and proposed species. The biological opinion may authorize a limited level of incidental take for federally listed species.

If a Federal agency is not involved with the project, and federally listed species may be taken as part of the project, then an "incidental take" permit pursuant to Section 10(a) of the Act should be obtained. The Service may issue such a permit upon completion by the permit applicant of a satisfactory conservation plan for the listed species that may be affected by the project.

We recommend that appropriately timed surveys for the identified species be undertaken by qualified biologists. The results of these surveys should be published in the environmental impact report. Should these surveys determine that listed, proposed, or candidate species may be affected by the proposed project, the Service recommends that the project proponent, in consultation with this office and the California Department of Fish and Game, develop a plan that mitigates for the project's direct and indirect impacts to these species and compensates for project-related loss of habitat. The mitigation plan also should be included in the environmental impact report.

One of the benefits of considering candidate species as well as listed and proposed species early in the planning process is that by exploring alternatives, it may be possible to avoid conflicts that could develop, should a candidate species become listed before the project is complete. In addition, in instances where the Service addresses proposed projects under its Fish and Wildlife Coordination Act authority, we must also analyze the impacts on candidate species and make recommendations to mitigate any adverse effects.

ATTACHMENT A

LISTED AND PROPOSED ENDANGERED AND THREATENED SPECIES AND
CANDIDATE SPECIES THAT MAY OCCUR IN THE AREA OF THE PROPOSED
WINTERS GENERAL PLAN REVISION, CITY OF WINTERS, YOLO COUNTY, CALIFORNIA
(1-1-91-TA-828, SEPTEMBER 1, 1991)

Listed Species

Invertebrates

valley elderberry longhorn beetle, *Desmocerus californicus dimorphus* (T)

Candidate Species

Amphibians

California tiger salamander, *Ambystoma tigrinum californiense* (2)

Birds

tricolored blackbird, *Agelaius tricolor* (2)

mountain plover, *Charadrius montanus* (2)

Mammals

Pacific western big-eared bat, *Plecotus townsendii townsendii* (2)

Plants

adobe lily, *Fritillaria pluriflora* (2)

- (E)--Endangered (T)--Threatened (CH)--Critical Habitat
(1)--Category 1: Taxa for which the Fish and Wildlife Service has sufficient biological information to support a proposal to list as endangered or threatened.
(2)--Category 2: Taxa for which existing information indicated may warrant listing, but for which substantial biological information to support a proposed rule is lacking.
(1R)--Recommended for Category 1 status.
(2R)--Recommended for Category 2 status.
(*)--Possibly extinct.

ATTACHMENT B

The goal of the U.S. Fish and Wildlife Service is to conserve, protect and enhance fish, wildlife, and their habitats by timely and effective provision of fish and wildlife information and recommendations. To assist us in accomplishing this goal, we would like to see the items described below discussed in your environmental documents for the proposed project.

Project Description. The document should very clearly state the purposes of, and document the needs for, the proposed project so that the capabilities of the various alternatives to meet the purposes and needs can be readily determined.

A thorough description of all permanent and temporary facilities and work to be done as a part of the project should be included. The document should identify any new access roads or equipment staging areas which are needed, and any material source sites. Figures accurately depicting proposed project features in relation to natural features (such as streams, wetlands, and other habitat types) in the project area should be included.

Affected Environment. The document should show the location of, and describe, all vegetative cover types in the areas potentially affected by all project alternatives and associated activities. Tables with acreages of each cover type with and without the project for each alternative would also be appropriate. We recommend that all wetlands in the project area be delineated and described according to the classification system found in the Service's Classification of Wetlands and Deepwater Habitats of the United States (Cowardin 1979). The Service's National Wetland Inventory maps would be one starting point for this effort.

The document should present and analyze a full range of alternatives to the proposed project. At least one alternative should be designed to avoid all impacts to wetlands, including vernal pools and riparian areas. Similarly, within each alternative, measures to minimize or avoid impacts to wetlands should be included.

Lists of fish and wildlife species expected to occur in the project area should be in the document. The lists should also indicate for each species whether or not it is a resident or migrant, and the period(s) of the year it would be expected in the project area.

Environmental Consequences. The sections on impacts to fish and wildlife should discuss impacts from vegetation removal (both permanent and temporary), filling or degradation of wetlands, interruption of wildlife migration corridors, and disturbance from trucks and other machinery during construction. These sections should also analyze possible impacts to streams from construction of outfall structures, pipeline crossings, and filling. Impacts on water quality, including nutrient loading, toxics, biological oxygen demand, and temperature in receiving waters should also be discussed in detail along with the resultant effects on fish and aquatic invertebrates. Discussion of indirect impacts to fish, wildlife, and their habitats,

including impacts from growth induced by the proposed project, should also be addressed in the document. The impacts of each alternative should be discussed in sufficient detail to allow comparison between the alternatives.

The cumulative impacts of the project, when viewed in conjunction with other past, existing, and foreseeable projects, need to be addressed. Cumulative impacts to fish, wildlife, wetlands and other habitats, and water quality should be included.

Mitigation Planning. Under provisions of the Fish and Wildlife Coordination Act, the Service advises the U.S. Army Corps of Engineers on projects involving dredge and fill activities in "waters of the United States", of which wetlands and some riparian habitats are subcategories. Since portions of this proposal may ultimately require a Corps permit, the Service will subsequently be involved under the Coordination Act. Therefore, if you have not done so already, we suggest that you or your representative consult the Corps regarding onsite wetlands and related habitats that may fall under their jurisdiction, and include this information in the draft document. When reviewing Corps public notices, the Service generally does not object to projects meeting the following criteria:

1. They are ecologically sound;
2. The least environmentally damaging reasonable alternative is selected;
3. Every reasonable effort is made to avoid or minimize damage or loss of fish and wildlife resources and uses;
4. All important recommended means and measures have been adopted, with guaranteed implementation to satisfactorily compensate for unavoidable damage or loss consistent with the appropriate mitigation goal; and
5. For wetlands and shallow water habitats, the proposed activity is clearly water dependent and there is a demonstrated public need.

The Service may recommend the "no project" alternative for those projects which do not meet all of the above criteria, and where there is likely to be a significant fish and wildlife resource loss.

When projects impacting waterways or wetlands are deemed acceptable to the Service, we recommend full mitigation for any impacts to fish and wildlife. The Council of Environmental Quality regulations for implementing the National Environmental Policy Act define mitigation to include: 1) avoiding the impact; 2) minimizing the impact; 3) rectifying the impact; 4) reducing or eliminating the impact over time; and 5) compensating for impacts. The Service supports and adopts this definition of mitigation and considers the

specific elements to represent the desirable sequence of steps in the mitigation planning process. Accordingly, we maintain that the best way to mitigate for adverse biological impacts is to avoid them altogether.

The document should describe all measures proposed to avoid, minimize, or compensate for impacts to fish and wildlife and their habitats. The measures should be presented in as much detail as possible to allow us to evaluate their probable effectiveness.

Because of their very high value to migratory birds, and their ever-increasing scarcity in California, our mitigation goal for wetlands (including riparian, riverine, and vernal pool wetlands) is no net loss of in-kind habitat value or acreage (whichever is greater). Our mitigation goal generally for oak woodlands is also no net loss of in-kind value or acreage.

For unavoidable impacts, to determine the mitigation credits available for a given mitigation project, we evaluate what conditions would exist on the mitigation site in the future in the absence of the mitigation actions, and compare those conditions to the conditions we would expect to develop on the site with implementation of the mitigation plan.

Mitigation habitat should be equal to or exceed the quality of the habitat to be affected by the project. Baseline information would need to be gathered at the impact site to be able to quantify this goal in terms of plant species diversity, shrub and tree canopy cover, stems/acre, tree height, etc. The ultimate success of the project should be judged according to these same measurements at the mitigation site.

Criteria should be developed for assessing the progress of the project during its developmental stages as well. Assessment criteria should include rates of plant growth, plant health, and evidence of natural reproduction. Success criteria should be geared toward equaling or exceeding the quality of the highest quality habitat to be affected. In other words, the mitigation effort would be deemed a success in relation to this goal if the mitigation site met or exceeded habitat measurements at a "model" site (plant cover, density, species diversity, etc.).

The plan should present the proposed ground elevations at the mitigation site, along with elevations in the adjacent areas. A comparison of the soils of the proposed mitigation and adjacent areas should also be included in the plan, and a determination made as to the suitability of the soils to support habitats consistent with the mitigation goals.

Because wetland ecosystems are driven by suitable hydrological conditions, additional information must be developed on the predicted hydrology of the mitigation site. The plan should describe the depth of the water table, and the frequency, duration, areal extent, and depth of flooding which would occur on the site. The hydrologic information should include an analysis of extreme conditions (drought, flooding) as well as typical conditions.

The plan must include a time frame for implementing the mitigation in relation to the proposed project. We recommend that mitigation be initiated prior to the onset of construction. If there will be a substantial time lag between project construction and completion of the mitigation, a net loss of habitat values would result, and more mitigation would be required to offset this loss.

Generally, monitoring of the mitigation site should occur annually for at least the first five years, semi-annually for years 6 through 11, and every five years thereafter until the mitigation has met all success criteria. The monitoring period should begin again if success criteria are not met during the first five years. Some projects will require monitoring throughout the life of the project. Reports should be prepared after each monitoring session.

The plan should require the preparation of "as-built" plans. Such plans provide valuable information, especially if the mitigation effort fails. Similarly, a "time-zero" report should be mandated. This report would describe exactly what was done during the construction of the mitigation project, what problems were encountered, and what corrections or modifications to the plans were undertaken.

The plan should detail how the site is to be maintained during the mitigation establishment period, and how long the establishment period will be. It will also be important to note what entity will perform the maintenance activities, and what entity will ultimately own and manage the site. In addition, a mechanism to fund the maintenance and management of the site should be established and identified. A permanent easement should be placed on the property used for the mitigation that would preclude incompatible activities on the site in perpetuity.

Finally, in some cases, a performance bond may be required as part of the mitigation plan. The amount of the bond should be sufficient to cover the costs of designing and implementing an adequate mitigation plan (and purchasing land if needed) should the proposed plan not succeed.

Reference

- Cowardin, L.M., V. Carter, F.C. Golet, and E.T. LaRoe. 1979. Classification of wetlands and deepwater habitats of the United States. FWS/OBS-79/31. U.S. Fish and Wildlife Service, Washington, D.C. 103 pp.

DEPARTMENT OF PUBLIC HEALTH

Environmental Health Services

COUNTY OF YOLO

HEALTH SERVICES AGENCY

PHILIP WALKER - HEALTH AGENCY ADMINISTRATOR

YOLO GENERAL HOSPITAL



ALCOHOL AND DRUG • MENTAL HEALTH • PUBLIC HEALTH

ROBERT O. BATES, Jr., M.D. - DIRECTOR OF PUBLIC HEALTH
 THOMAS Y. TO - DIRECTOR OF ENVIRONMENTAL HEALTH

-MEMORANDUM-

August 15, 1991

TO: Perry Beck, City Manager
 City of Winters

FROM: Thomas Y. To, Director *TYT*
 Environmental Health Department

RE: NOP of DEIR - Winters General Plan Revision

Please be informed that our office has reviewed the environmental document associated with the above referenced subject. We recommend that the following issues be addressed in the DEIR:

1. Impacts and mitigations on existing infrastructures as a result of each proposed General Plan Alternatives.
2. Possible impacts and mitigations to the water quality of Putah Creek under different General Plan alternatives.
3. Plan and resources to deal with natural disasters such as flood and earthquake for an increased population.
4. Plan and resources to abate public nuisances for an increased population.
5. Plan and final closure of old city landfill and how it will be developed properly.

Please feel free to contact me or Paul Fitzmaurice of our office should you have any questions regarding this matter.

TYT:t4beck



County of Yolo

DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION
ROAD COMMISSIONER
292 WEST BEAMER STREET

SURVEYOR
WOODLAND, CALIFORNIA 95695-2598

ENGINEER
(916) 666-8773

JOHN M. ROBERTSON
DIRECTOR

RECEIVED JUN 21 1991

MEMORANDUM

DATE: June 20, 1991

TO: City of Winters City Council

FROM: Tamara Bowcutt, Assistant Director
Yolo County Department of Public Works

SUBJECT: Incorporation of County Hazardous Waste
Management Plan as Part of the City General
Plan

The Yolo County Hazardous Waste Management Plan (1989) was rejected by the State Department of Health Services (DHS) based solely on the "Fair Share" language recommended by CSAC in a letter dated September 21, 1988. CSAC has since published new language (January 26, 1990) using verbiage from a letter authored by Dr. Ken Kiser dated October 6, 1989.

The "Fair Share" language, as it exists in the Plan can be found on pages 1-20 through 1-22, page 7-1 and page 16-35 through 16-36. A copy of the CSAC/Ken Kiser language can be obtained from the Yolo County Department of Public Works.

The Yolo County Waste Advisory Committee was presented with an analysis of options for changes, deletions, or up-dates to the "Fair Share" language. These alternatives are as follows:

1. Make no changes to the present language,
2. Take out the current language and replace with Ken Kiser language,
3. Blend in the Ken Kiser language with the existing language,
4. Devise new language that will meet with State approval,
5. Take out all reference to "Fair Share."

On May 9, 1991, the Yolo County Waste Advisory Committee voted to not change, delete, or up-date the "Fair Share" language in the May 1989 Plan. On June 4, 1991, the Yolo County Board of Supervisors further endorsed this recommendation by voting that the Plan remain as is and be incorporated into the County General Plan.

The statutory deadline for resubmittal of Plans to the DHS was June 17, 1991. The May 1989 Plan was resubmitted with a request to reconsider the "Fair Share" language. It is quite likely that DHS will not approve the Plan.

The ramifications of not having an approved DHS Plan were reviewed by County Counsel. This memorandum is presented as an attachment.

It is recommended by this agency that the May 1989 Plan be incorporated in the cities' general plans as soon as possible. The Plan is a well written land use document which could prove quite useful should a proponent pursue a hazardous waste management facility in or around your city.

It is in your city's best interest to incorporate the Plan into your city general plan, because if a proponent's application is denied by local government, the proponent may appeal to the State Appeals Board to have that decision overturned. The Appeals Board must consider consistency with a DHS approved Plan, CEQA, and the local General Plan as it existed at the time the proponent's application was complete.

Assuming that the County will not have an approved Plan, we must include the policies of the Plan approved by your City Council and the Board of Supervisors in the local General Plan and city plans to allow those policies to be brought into the appeal process, as well as to be used by this County and your city for land use issues.

If you have any questions regarding this subject please call me at 666-8775.

TB:jl

cc: Perry Beck, City Manager, City of Winters

Barry Pomeroy, City of Winters Representative
to the Waste Advisory Committee

Amelia Hutchinson, City of Winters Public Works

YOLO COUNTY
LOCAL AGENCY FORMATION COMMISSION
292 WEST BEAMER STREET
WOODLAND, CALIFORNIA 95695
(916) 666-8048

RECEIVED

AUG 21 1991

DUNCAN & JONES

August 21, 1991

Perry Beck, City Manager
City of Winters
318 First Street
Winters, CA 95694

SUBJECT: Notice of Preparation of Draft Environmental Impact Report for the
Winters General Plan Revision

Dear Mr. Beck:

Thank you for the opportunity to respond to the Notice of Preparation for the Winters General Plan Revision. The information provided on the Environmental Check List indicates that the issues LAFCO will want covered in the Environmental Impact Report will be addressed.

Local Agency Formation Commission's are charged with the responsibility of: preservation of agricultural land, orderly development and the provision of urban services. Before annexation of any of the land within the proposed General Plan area could take place LAFCO would be required to evaluate three major concerns that apply to the General Plan Revision. These concerns are: the loss of prime agricultural land to development, the effect the proposed development will have on adjacent agricultural lands, and the ability of the City to provide urban services to the area.

The Winters Sphere of Influence was revised in April 1986. That revision was based on the population projection of 13,358 in the 1985 Winters General Plan. The Sphere of Influence boundaries established at that time vary little from the proposed Winters General Plan Revision. The population projections for Alternatives I and II, that the City is indicating they will evaluate in detail, are within the same range. While the proposed project may differ, the impact for urban services and the loss of agricultural land remain the same.

The loss of open space/agricultural land cannot be mitigated. As a partial mitigation the City may want to look at the purchase of development rights or conservation easements. The impacts on surrounding agricultural lands by proposed development must be reviewed and considered.

One variation in the General Plan Revision from the Sphere of Influence is at the interchange of I-505. The Sphere boundary excluded the territory east of I-505 in the interchange. LAFCO sees I-505 as a natural geographical boundary for the limits of the City of Winters. LAFCO policy would direct urban development to the west and north of the current city limits.

If you have any questions concerning this response, please call me.

Sincerely,

A handwritten signature in cursive script that reads "Charlotte Nevills".

Charlotte Nevills
Assistant Executive Officer

YOLO SOLANO

AIR POLLUTION CONTROL DISTRICT

P.O. Box 1000, Woodland, CA 95695
Phone (916) 668-6700
FAX (916) 668-6710

August 20, 1991

RECEIVED AUG 22 1991

Perry Beck
City Manager
City of Winters
318 First Street
Winters, CA 95694

Dear Mr. Beck:

The Yolo/Solano Air Pollution Control District has reviewed the Notice of Preparation (NOP) for the City of Winters General Plan Revision DEIR. The following comments are provided for your consideration in preparation of the Draft Environmental Impact Report.

The NOP indicates that the General Plan will result in significant air quality impacts. We agree, as the project will allow for a substantial amount of new development within the City of Winters. Increases in stationary, area, and mobile source emissions are expected as a result of the project.

MITIGATION MEASURES

Section 21002.1 (d) of CEQA states that "Each public agency shall mitigate or avoid the significant effects on the environment of projects it approves or carries out whenever it is feasible to do so."

For projects of this nature we are most interested in ensuring that all feasible mitigation measures, or emission control strategies, are implemented. For stationary sources, emissions will be controlled through the Yolo/Solano APCD permit process. For mobile sources, we have found that intelligent land use planning is the most effective means of minimizing emissions. Below is a listing and short description of several effective land use policies designed to minimize mobile source emissions. We recommend that they be reviewed and incorporated into the General Plan if found to be applicable and feasible.

LAND USE POLICIES

Land Use-Transit Coordination: To ensure that local mass transit is both efficient and useful the General Plan should carefully match transit routes and stations to the most appropriate trip origins and destinations.

Growth Rate Limitations: A General Plan policy to limit the growth rate of a locality can be an effective air quality strategy. Implementation of such a policy would keep population growth and the corresponding increases in mobile and stationary sources below the uncontrolled level.

Mixed Land Uses: The General Plan should encourage complementary mixed land uses, within a single development project, in order to reduce vehicle trips and VMT. For example, suitable shopping facilities can be located near a large residential area.

Job-Housing Balance: To reduce vehicle miles travelled the General Plan should relate jobs and housing by matching the numbers and types of jobs with appropriate, conveniently located housing for workers.

High Density Development: To reduce automobile generated air pollution the General Plan should encourage concentrated residential, commercial, and industrial centers, close-in to urban core areas.

In closing, it should be noted that the aforementioned land use policies may be inappropriate or infeasible given the particular circumstances of The City of Winters. By suggesting them we hope to aid the city in meeting the requirements of Section 21002.1 (d) of CEQA.

In addition to the aforementioned land use policies, we recommend that the following be included in the Winters General Plan Draft EIR:

1. Daily vehicle trips and their associated emissions should be evaluated.
2. The project's impacts on local and regional air quality. This should include an analysis of current and future air quality with comparisons of project and regional emissions data.
3. Mitigation measures, a schedule for implementation, and potential emission reductions should be presented.

Thank you for the opportunity to comment on the NOP. If you have any questions, feel free to call me at (916) 668-6703.

Sincerely,



David B. Smith

Air Pollution Control Specialist II



WINTERS JOINT UNIFIED SCHOOL DISTRICT

47 MAIN ST., WINTERS, CA 95694-1799

916/795-4588 916/662-5340 FAX 916/795-4554

MICHAEL ROBERTS, Ph.D. DISTRICT SUPERINTENDENT

BOARD OF TRUSTEES

PATRICIA DELOREFICE

ELIZABETH EHNT

RUSSELL LESTER

THOMAS ROMINGER

RICHARD ROMNEY

JEANNIE TINDEL

NORMAN TODD

August 20, 1991

RECEIVED AUG 22 1991

Perry Beck, City Manager
City of Winters
318 First Street
Winters, CA 95694

Dear Mr. Beck:

Thank you for the opportunity to review the "Notice of Preparation of Draft Environmental Impact Report" and the "Environmental Check List".

We appreciate your recognition that the General Plan Amendment will have a significant impact on the Winters Joint Unified School District. We look forward to the opportunity to review and comment on the Draft Environmental Impact Report when it is available.

Sincerely,

Mike Roberts
Superintendent

DEPARTMENT OF CONSERVATION

DIVISION OF ADMINISTRATIVE SERVICES
DIVISION OF MINES AND GEOLOGY
DIVISION OF OIL AND GAS
DIVISION OF RECYCLING

RECEIVED

DUNCAN R. JONES



1416 Ninth Street
SACRAMENTO, CA 95814
TDD (916) 324-2555
ATSS 454-2555

(916) 445-8733

August 21, 1991

Mr. Perry Beck
City of Winters
318 First Street
Winters, CA. 95694

Subject: Notice of Preparation (NOP) of a Draft Environmental Impact Report (DEIR) for the City of Winters General Plan Revision. SCH# 91073080.

The Department of Conservation has reviewed the City of Winters' Notice of Preparation for the general plan revision referenced above which will convert 1,170 acres of agricultural land, which includes approximately 900 acres of currently productive prime agricultural land. The site is surrounded by agricultural land, including land covered by Williamson Act contracts.

The Department is responsible for monitoring farmland conversion on a statewide basis and also administers the California Land Conservation (Williamson) Act. Since adoption of this general plan revision could have environmental impacts on agricultural and Williamson Act contracted lands, the Department offers the following comments.

The loss of prime agricultural land should be identified and treated as a significant environmental impact. The California Administrative Code (Section 15000 et seq., Appendix G (y)) states that a project will normally have a significant effect on the environment if it will convert prime agricultural land to a non-agricultural use or impair the agricultural productivity of prime agricultural land. Since it appears that this general plan revision will have such an effect, the Draft Environmental Impact Report (DEIR) should provide information on the number of acres of agricultural land to be developed, the potential agricultural value of the site, the impacts of farmland conversion, and possible mitigation actions. Specifically, we recommend that the DEIR contain the following information to ensure the adequate assessment of impacts in these areas.

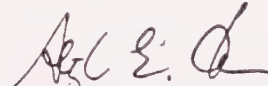
- o The agricultural character of the City of Winters, including:
 - A map which identifies the location of agricultural preserves, the number of acres and type of land in each

- preserve (i.e., prime, non-prime).
 - Types and relative yields of crops grown in the affected areas, or in areas of similar soils under good agricultural management.
 - The agricultural potential of the areas soils as defined by the Department of Conservation's Important Farmland Series Map Designations.
- o Farmland Conversion Impacts.
- The type, amount and location of farmland conversion that would result from implementation of the general plan revision.
 - The impacts on current and future agricultural operations.
 - The cumulative and growth-inducing impacts of the proposal on farmland in the study area.
 - The impacts on adjacent Williamson Act contracted land both in the City and in Solano County.
 - The economic impacts of the farmland conversion. [In assessing these impacts, use should be made of economic multipliers, such as those used in the University of California Cooperative Extension's study, "Economic Impacts of Agricultural Production and Processing in Stanislaus County."]
- o Mitigation measures and alternatives that would lessen farmland conversion impacts. Some of the possibilities are:
- Directing urban growth to lower quality soils in order to protect prime agricultural land.
 - Protecting other, existing farmland of equivalent, or better, quality through planning policy that relies on an active and strategic use of the Williamson Act.
 - Implementing right-to-farm ordinances to diminish nuisance impacts of urban uses on neighboring agricultural operations, and vice-versa.
 - Adopting a farmland protection program that utilizes such land use planning tools as transfer of development rights, purchase of development rights or conservation easements, and farmland trusts.

Mr. Beck
Page Three

The Department appreciates the opportunity to comment on the NOP. We hope that the farmland conversion impacts and the Williamson Act contract issues are given adequate consideration in the DEIR. If I can be of further assistance, please feel free to call me at 9916) 322-5873.

Sincerely,



Stephen E. Oliva
Environmental Program Coordinator

cc: Kenneth E. Trott, Manager
Land Conservation Unit

Dixon Resource Conservation District

DEPARTMENT OF TRANSPORTATION

DISTRICT 3

P.O. BOX 942874-MS41

Sacramento, CA 94274-0001

TDD 916-741-4509

FAX 916-323-7669

916-327-3859

August 27, 1991

DUNCAN S. JONES

CYOL051
03-YOL-505/128
Winters GP Revision
NOP/DEIR
SCH: #91073080

Mr. Perry Beck
City of Winters
318 First Street
Winters, CA 95694

Dear Mr. Beck:

Thank you for the opportunity to review and comment on the above referenced document.

COMMENTS:

In preparation of the circulation element, the City should consider the improvements and comments that were discussed at the meeting of Caltrans and City staff on May 16, 1991 (see attached notes dated 5/17/91). Also, the comments we made in the attached letter dated June 7, 1991, on the Community Development Project Area Plan should be considered.

If you have any questions regarding this comment, please contact Sharon Scherzinger at 916-324-6642.

Sincerely,



ROBERT M. O'LOUGHLIN
Chief, Planning Branch C

Attachments (2)

DEPARTMENT OF TRANSPORTATION

DISTRICT 3

P.O. BOX 942874-MS41

Sacramento, CA 94274-0001

D 916-741-4509

FAX 916-323-7669

916-327-3859

June 7, 1991

CYOL025
03-Yol-128
City of Winters Community
Development Project Area Plan
DEIR
SCH#: 91013040

Mr. Perry Beck, City Manager
City of Winters
Community Development Department
318 First Street
Winters, CA 95694

Dear Mr. Beck:

Thank you for the opportunity to review and comment on the above referenced document.

COMMENTS:

The traffic study should be expanded to include an AM peak-hour analysis. Route 128 through the project area is currently operating at peak hour LOS E. Copies of the future LOS analysis for all state highway intersections should be sent to Caltrans. A figure should be included in the study which shows the future intersection lane geometries assumed for the analysis. A peak-hour analysis of the network shown in Figure 8 should also be included. The benefits of providing local streets parallel to the state highway would become apparent.

Under the maximum development scenario at buildout, after mitigation, the DEIR continues to route the highest percentage of trips through the two lane portion of State Route 128 between Railroad Street and Apricot Street. Local facilities should be developed parallel to State Route 128 for internal traffic circulation.

Mr. Perry Beck
June 7, 1991
Page 2

The City should plan to provide a minimum of 500 feet of spacing between all future signalized intersections, with 800 feet to 1200 feet being a more desirable distance for signal coordination. Road 90 will need to be relocated away from the south bound off ramp.

If you have any questions regarding this comment, please contact Lib Haraughty at 916-741-4539.

Sincerely,

Original Signed by

ROBERT M. O'LOUGHLIN
Chief, Planning Branch C

bcc: Jim Brake, Traffic Branch A
John Webb, Planning Branch A
IGR/CEQA Coordinator, D-3, Sacramento
District Routing
Jody Lonergan, Planning Branch B

EAH:1a

MEETING NOTES

CH2M HILL

SUBJECT: State Route 128 Concept Plan

MEETING DATE: May 16, 1991

LOCATION: Winters

ATTENDEES: Perry Beck/City of Winters
Amelia Hutchinson/City of Winters
Bill Hurrell/Wilbur Smith & Associates
JoAnn Marvelli/Caltrans
Eric Hanson/Caltrans
Chuck Cook/Caltrans
John Webb/Caltrans
Stephen Jackson/CH2M HILL

NOTES BY: Stephen Jackson

DATE: May 17, 1991

Topics discussed were improvement standards for Route 128 and the I-505 Interchange, and traffic volumes for the general plan and route concept report.

Bill Hurrell presented traffic volume model diagrams for general plan populations of 12,500 and 14,000 with and without a new bridge across Putah Creek.

The traffic volumes indicate that four lanes are required on Route 128 for 20-year general plan traffic with additional lanes for left turns at intersections.

Caltrans said 12-foot lanes and 8-foot-wide shoulders would be required for improvements on Route 128. Intersections should be at least 500 feet apart. Driveways could be in between intersections, but should be restricted to right turns only by a raised median barrier. The typical street cross section should include 8-foot shoulders, 12-foot lanes, and 16-foot-wide median. The 8-foot shoulder would be measured to the face of curb. A 14-foot-wide median would be acceptable.

Caltrans would allow planting in the median and on the sides of the street behind back of curb. A landscaping plan would have to be reviewed for sight distance and other factors, and a maintenance agreement between the City and Caltrans executed. The City would pay the cost of plant water and maintenance. The City could also plant in the I-505 Interchange by agreement. Treated sanitary sewer water could be reused for irrigation on planting in the interchange. The space for planting in the Route 128 median would be limited by left turn lanes at intersections.

Caltrans suggested the long-range plan beyond the 20-year general plan horizon consider a state route bypass of Winters and that right-of-way protection be considered when development is initiated.

Caltrans suggested the links on the traffic models be revised around the I-505 Interchange to a standard interchange configuration and to eliminate local street intersections within 500 feet of the ramp intersections. Caltrans will not allow partial or nonstandard interchanges.

The I-505 ramps to Putah Creek Road south of Winters may need to be improved to handle the additional traffic.

Caltrans advised that state funding of these state highway improvements should not be expected.

Caltrans provided traffic data for the Winters segment of Route 128.

The City's General Plan Street Improvement element should agree with the State Route 128 Concept Report to facilitate future improvement of Route 128 and the I-505 Interchange.

APPENDIX B

Representative Fiscal Model Printout

City of Winters General Plan Fiscal Analysis

Table Index
City of Winters General Plan Fiscal Analysis

Table Name	Title	Description
Table 1	General Assumptions	Alternative V--Reduced Urbanization
Table 2	Land Use Assumptions	Alternative V--Reduced Urbanization
Table 3	Buildout Schedule	Alternative V--Reduced Urbanization
Table 4	New Assessed Valuation	Alternative V--Reduced Urbanization
Table 5	Property Tax	Alternative V--Reduced Urbanization
Table 6	Employment	Alternative V--Reduced Urbanization
Table 7	Population	All Alternatives
Table 8	General Fund Revenue	Alternative V--Reduced Urbanization
Table 9	General Fund Expenditures and Revenue Allocation	Alternative V--Reduced Urbanization
Table 10	Budget Summary - Net New Revenues and Expenditures	Alternative V--Reduced Urbanization
Table 11	Summary of Net Fiscal Balance	All Alternatives
Table 12	Summary of Development and Demographic Assumptions	All Alternatives
Table 13	Summary of Revenue and Expenditures by Budget Item	All Alternatives
Note 1	Population, Employment and Daytime Population Estimate	Alternative V--Reduced Urbanization
Note 2	Sales Tax and Transportation Tax Revenue Estimates	Alternative V--Reduced Urbanization
Note 3	Transient Occupancy Tax Revenue Estimate	Alternative V--Reduced Urbanization
Note 4	Property Transfer Tax Revenue Estimate	Alternative V--Reduced Urbanization
Note 5	Police Services Costs Estimates	Alternative V--Reduced Urbanization
Note 6	Fire Services Costs Estimates	Alternative V--Reduced Urbanization
Note 7	Public Works: Street Maintenance Costs	Alternative V--Reduced Urbanization
Table DB-1	Project Description Database	All Alternatives
Table DB-2	Non-Residential Space Assumptions	All Alternatives

B-1

Table 1
General Assumptions
Alternative 1--Draft General Plan

Model Run		Existing Conditions	unit	Total
Manual Entry Job Control	Alternative 1	Residential	du	1,631
		Neighborhood Commercial	sqft	69,000
General		Highway Service Commercial	sqft	103,000
		Central Business District	sqft	377,000
		Office	sqft	0
		Business/Industrial Park	sqft	0
Start Year	1992	Light Industrial	sqft	252,000
Current Year	1991	Heavy Industrial	sqft	149,000
Inflation	5.0%	Open Space	acre	0
Interest Rate	NA	Public Building Square Feet	sqft	30,000
Legislated Appreciation Rate	2.0%	Improved Park Land	acre	3.5
		Streets	mile	18
		City Population-DOF		4,778
		Employment-SACOG		1,101
		Assessed Value		0
		Residential Vacancy Rate		0.0%
		Commercial/Industrial Vacancy Rate		5.0%
		Net-to-Gross		0.85
		Floor Area Ratio		0.25

Sources: City of Winters; Economic and Planning Systems, Inc.

Table 2
Land Use Assumptions
Alternative I--Draft General Plan

Land Use	Unit of Measure	Value per Sqft/unit	Existing Base Value	Demographics	
				Persons per DU	SQFT per Employee
SF-Low Density	du	\$250,000	\$0	2.80	0
SF-Med. Density	du	\$180,000	\$0	2.60	0
MF-High Density	du	\$60,000	\$0	2.00	0
Retail	sqft	\$75	\$0	0	400
Service	sqft	\$65	\$0	0	450
Office	sqft	\$100	\$0	0	275
Industrial	sqft	\$45	\$0	0	500
Hotel	room	\$45,500	\$0	0	0
Parks	acre	\$0	\$0	0	0
Open Space	acre	\$0	\$0	0	0
Streets	mile	\$0	\$0	0	0

Sources: City of Winters; Economic and Planning Systems, Inc.

Table 3
Buildout Schedule
Alternative 1--Draft General Plan

Land Use	Unit of Measure	Total Development	Occupied Development
SF-Low Density	du	294	294
SF-Med. Density	du	2,300	2,300
MF-High Density	du	429	429
Retail	sqft	161,200	153,140
Service	sqft	155,588	147,808
Office	sqft	51,863	49,269
Industrial	sqft	829,800	788,310
Hotel	room	50	50
Parks	acre	23.2	23.2
Open Space	acre	181.2	181.2
Streets	mile	25.4	25.4

Sources: City of Winters; Economic and Planning Systems, Inc.

Table 4
New Assessed Valuation
Alternative 1--Draft General Plan

Land Use	New Assessed Value (Constant \$)
SF-Low Density	\$73,500,000
SF-Med. Density	\$414,000,000
MF-High Density	\$25,740,000
Retail	\$12,090,000
Service	\$10,113,188
Office	\$5,186,250
Industrial	\$37,341,000
Hotel	\$2,275,000
Parks	\$0
Open Space	\$0
Streets	\$0
Total	\$580,245,438

Note: Assessed Value is calculated at buildout based on market value. In fact, the actual A.V. may be less than market value due to the restrictions of Proposition 13.

B-5

Table 5
Property Tax
Alternative I--Draft General Plan

Item	Tax Allocation Factor	Increase at Buildout
Assessed Value (1)		\$580,245,438
Property Tax @ 1.00 %		\$5,802,454
Property Tax Revenue		

City of Winters	25.0%	\$1,450,614
Winters Fire Protection District (2)	11.0%	\$638,270
Other Agencies	75.0%	\$4,351,841
Total	100%	\$5,802,454

(1) Assessed Value is calculated at buildout based on market value. In fact, the actual A.V. may be less than market value due to the restrictions of Proposition 13.

(2) Winters Fire Protection District receives 44% of the city's 25% of property tax revenues.

Sources: City of Winters; Economic and Planning Systems, Inc.

Table 6
Employment
Alternative I--Draft General Plan

Land Use	Employment Increase at at 2010
SF-Low Density	0
SF-Med. Density	0
MF-High Density	0
Retail	383
Service	328
Office	179
Industrial	1,577
Hotel	0
Parks	0
Open Space	0
Streets	0
Total	2,467

B-7

Table 7
Population
Alternative I--Draft General Plan

Land Use	Population Increase at 2010
SF-Low Density	823
SF-Med. Density	5,980
MF-High Density	858
Retail	0
Service	0
Office	0
Industrial	0
Hotel	0
Parks	0
Open Space	0
Streets	0
Total Population	7,661

Source: Economic and Planning Systems, Inc.

Table 8
General Fund Revenue
Alternative 1--Draft General Plan

ITEM	1991-92 BUDGET	PERCENT OF TOTAL REVENUE	ESTIMATING PROCEDURE	BUDGET MULTIPLIER	PROJECTED NET NEW REVENUE AT 2010	% DIS- TRIBUTION
GENERAL FUND:						
TAXES						
Property Tax	\$403,089	30.8%	(See Table 5)		\$1,450,614	57.7%
Sales & Use Tax	\$139,725	10.7%	(See Note 2)		\$257,275	10.2%
Transient Occupancy Tax (1)	0	0.0%	(See Note 3)		\$27,375	1.1%
Property Transfer Tax	\$6,296	0.5%	(See Note 4)		\$53,625	2.1%
Franchise Tax (3)	\$24,130	1.8%	Per Daytime Population (2)	\$4.53	\$40,280	1.6%
Municipal Services Tax	\$105,349	8.1%	Per Daytime Population (2)	\$19.77	\$175,857	7.0%
LICENSES AND PERMITS						
Business License Fees	\$12,857	1.0%	Per Daytime Population (2)	\$2.41	\$21,462	0.9%
Building Permit Fees	\$27,152	2.1%	Offsets Costs			
Other Permit Fees (4)	\$3,427	0.3%	Offsets Costs			
FINES, FORFEITURES, AND PENALTIES						
	\$1,265	0.1%	Per Capita	\$0.26	\$2,028	0.1%
FEE REVENUE						
Planning and Development Fees	\$7,900	0.6%	Offsets Costs			
Parks and Recreation Fees	\$35,015	2.7%	Offsets Costs			
Utility and Refuse Fees	\$24	0.0%	Not Evaluated			
USE OF MONEY & PROPERTY						
	\$4,000	0.3%	Not Evaluated			
REVENUE FROM OTHER AGENCIES						
Motor Vehicle In-Lieu	\$176,013	13.5%	Per Capita	\$36.84	\$282,225	11.2%
P.O.S.T. Training Reimb./OCJP	\$47,894	3.7%	Per Capita	\$10.02	\$76,795	3.1%
Other (State Subventions)	\$77,781	5.9%	Per Capita	\$16.28	\$124,716	5.0%
CHARGES FOR SERVICES						
	\$82,328	6.3%	Offsets Costs			
TRANSFERS IN						
	\$153,287	11.7%				
TOTAL, GENERAL FUND REVENUE	\$1,307,533	100.0%			\$2,512,251	100%
OTHER FUNDS:						
TRANSPORTATION TAX FUND	\$206,882		(See Note 2)		\$61,256	
GAS TAX FUNDS	\$68,000		Per Capita	\$14.23	\$109,033	

(1) The City is considering implementing a Transient Occupancy Tax Ordinance.

(2) Daytime Population equals total population plus one-half of employment (see Note 1).

(3) Franchise tax is levied on the gross receipts of Pacific Bell Public Telephone, Cable T.V., and P.G. & E.

(4) Other permits include mechanical, plumbing, electrical permits, and P.W. encroachment permits.

Table 9
General Fund Expenditures and Revenue Allocation
Alternative 1--Draft General Plan

ACTIVITY	1991-92 BUDGET	PERCENT OF BUDGET	CHARGES AND FEE REVENUE	NET EXPENDITURES	ESTIMATING PROCEDURE	BUDGET MULTIPLIER	PROJECTED NET NEW COSTS AT 2010	PERCENT DISTRIBUTION
GENERAL GOVERNMENT	\$382,751	23.8%	\$75,928	\$306,823	Per Daytime Population (1)	\$57.58	\$512,173	16.3%
PLANNING DEPARTMENT	\$155,590	9.7%	\$38,479	\$117,112	Per Capita	\$24.51	\$187,781	6.0%
POLICE SERVICES	\$545,347	33.9%	\$900	\$544,447	(See Note 5)		\$991,766	31.5%
FIRE SERVICES (2)	\$186,117	11.6%	\$5,000	\$181,117	(See Note 6)		\$790,350	25.1%
PARKS & RECREATION								
Parks and Ground Maintenance	\$37,506	2.3%	\$500	\$37,006	Per Park Acre	\$10,573	\$244,936	7.8%
Swimming and Rec. Programs	\$44,136	2.7%	\$22,114	\$22,022	Per Capita	\$4.61	\$35,311	1.1%
Com. Cen./Other Public Bldgs.	\$75,815	4.7%	\$12,900	\$62,915	Per Capita	\$13.17	\$100,880	3.2%
PUBLIC WORKS								
Administration and Engineering	\$106,169	6.6%	\$0	\$106,169	Per Capita	\$22.22	\$170,235	5.4%
Street Maintenance Department	\$40,009	2.5%	\$0	\$40,009	(See Note 7)		\$56,434	1.8%
Corporate Yard	\$36,119	2.2%	\$0	\$36,119	Per Capita	\$7.56	\$57,915	1.8%
TOTAL GENERAL FUND EXPENDITURES	\$1,609,561	100%	\$155,821	\$1,453,740			\$3,147,780	100%

(1) Daytime Population equals total population plus one-half of employment (see Note 1).

(2) The City is studying the possibility of providing all fire services, the cost of providing these services would be the same whether the City funded the services directly from the General Fund or through a contract with the Winters Fire Protection District.

Table 10
Budget Summary - Net New Revenues and Expenditures
Alternative I--Draft General Plan

Budget Item	Fiscal Balance at 2010	Percent Dis- tribution
GENERAL FUND		
Revenues		

Property Tax	\$1,450,614	57.7%
Sales & Use Tax	\$257,275	10.2%
Transient Occupany Tax	\$27,375	1.1%
Property Transfer Tax	\$53,625	2.1%
Franchise Tax	\$40,280	1.6%
Municipal Services Tax	\$175,857	7.0%
Business License Fees	\$21,462	0.9%
Fines, Forfeitures, and Penalties	\$2,028	0.1%
Motor Vehicle In-Lieu	282,225	11.2%
P.O.S.T. Training Reimb./OCJP	\$76,795	3.1%
Other (State Subventions)	\$124,716	5.0%

TOTAL, REVENUES	\$2,512,251	100%
Expenditures		

General Government	\$512,173	16.3%
Planning Department	\$187,781	6.0%
Police Services	\$991,766	31.5%
Fire Services	\$790,350	25.1%
Parks and Ground Maintenance	\$244,936	7.8%
Swimming and Rec. Programs	\$35,311	1.1%
Com. Cen./Other Public Bldgs.	\$100,880	3.2%
Administration and Engineering	\$170,235	5.4%
Street Maintenance Department	\$56,434	1.8%
Corporate Yard	\$57,915	1.8%

TOTAL, EXPENDITURES	\$3,147,780	100%
<hr/>		
GENERAL FUND SURPLUS (DEFICIT)	(\$635,529)	NA
<hr/>		

B-11

Table 11
Summary of Net Fiscal Balance
All Alternatives

Alternative Name	Alternative Description	Revenues at 2010	Expenditures at 2010	Net Fiscal Balance at 2010
Alternative I	Draft General Plan	\$2,512,251	\$3,147,780	(\$635,529)
Alternative II	Modified DGP	\$2,990,029	\$3,686,625	(\$696,595)
Alternative III	North Area Specific Plan	\$3,341,982	\$3,734,742	(\$392,760)
Alternative IV	Existing General Plan	\$3,253,419	\$3,715,620	(\$462,201)
Alternative V	Reduced Urbanization	\$2,213,079	\$2,693,707	(\$480,628)

Sources: City of Winters; Economic and Planning Systems, Inc.

Table 12
Summary of Development and Demographic Assumptions
All Alternatives

Land Uses	Unit of Measure	Alternative I Draft General Plan	Alternative II Modified DGP	Alternative III North Area Specific Plan	Alternative IV Existing General Plan	Alternative V Reduced Urbanization
RESIDENTIAL						

SF-Low Density	du	294	24	1,898	1,495	1,149
SF-Med. Density	du	2,300	3,133	1,224	1,595	979
MF-High Density	du	429	668	555	600	169
Total Dwelling Units		3,023	3,825	3,677	3,690	2,297
NON-RESIDENTIAL						

Retail	sqft	161,200	192,400	213,200	213,200	129,900
Service	sqft	155,588	155,588	155,588	155,588	155,588
Office	sqft	51,863	51,863	51,863	51,863	51,863
Industrial	sqft	829,800	829,800	829,800	829,800	829,800
Total Building Space		1,198,450	1,229,650	1,250,450	1,250,450	1,167,150
Hotel	room	50	50	50	50	50
OTHER USES						

Parks	acre	23.2	27.7	30.7	30.7	18.7
Open Space	acre	181.2	181.0	181.0	181.0	181.0
Streets	mile	25.4	25.4	25.4	25.4	25.4
DEMOGRAPHICS						

Total Population (1)		12,500	14,000	15,000	15,000	11,000
Net Increase in Population		7,722	9,222	10,222	10,222	6,222
Total Employment		3,568	3,642	3,692	3,692	3,494
Net Increase in Employment		2,467	2,541	2,591	2,591	2,393

(1) Based on projected total population under each General Plan Alternative.
Net increase in population assumes an existing population of 4,778.

Sources: City of Winters; Economic and Planning Systems, Inc.

Table 13
Summary of Revenue and Expenditures by Budget Item
All Alternatives

Budget Item	Alternative I Draft General Plan	Alternative II Modified DGP	Alternative III North Area Specific Plan	Alternative IV Existing General Plan	Alternative V Reduced Urbanization
Revenues					
Property Tax	\$1,450,614	\$1,698,414	\$1,997,564	\$1,919,389	\$1,345,670
Sales & Use Tax	\$257,275	\$307,070	\$340,267	\$340,267	\$207,320
Transient Occupany Tax	\$27,375	\$27,375	\$27,375	\$27,375	\$27,375
Property Transfer Tax	\$53,625	\$62,693	\$76,430	\$72,694	\$50,982
Franchise Tax	\$40,280	\$48,997	\$49,371	\$49,036	\$33,045
Municipal Services Tax	\$175,857	\$213,913	\$215,544	\$214,085	\$144,267
Business License Fees	\$21,462	\$26,106	\$26,305	\$26,127	\$17,607
Fines, Forfeitures, and Penalties	\$2,028	\$2,527	\$2,542	\$2,523	\$1,615
Motor Vehicle In-Lieu	\$282,225	\$351,769	\$353,898	\$351,179	\$224,736
P.O.S.T. Training Reimb./OCJP	\$76,795	\$95,718	\$96,298	\$95,558	\$61,152
Other (State Subventions)	\$124,716	\$155,447	\$156,388	\$155,187	\$99,311
TOTAL, REVENUES	\$2,512,251	\$2,990,029	\$3,341,982	\$3,253,419	\$2,213,079
Expenditures					
General Government	\$512,173	\$623,009	\$627,759	\$623,510	\$420,171
Planning Department	\$187,781	\$234,052	\$235,469	\$233,660	\$149,530
Police Services	\$991,766	\$1,236,148	\$1,243,630	\$1,234,076	\$789,742
Fire Services	\$790,350	\$790,350	\$790,350	\$790,350	\$790,350
Parks and Ground Maintenance	\$244,936	\$292,515	\$324,234	\$324,234	\$197,357
Swimming and Rec. Programs	\$35,311	\$44,012	\$44,279	\$43,938	\$28,118
Com. Cen./Other Public Bldgs.	\$100,880	\$125,737	\$126,498	\$125,527	\$80,330
Administration and Engineering	\$170,235	\$212,182	\$213,467	\$211,827	\$135,558
Street Maintenance Department	\$56,434	\$56,434	\$56,434	\$56,434	\$56,434
Corporate Yard	\$57,915	\$72,186	\$72,623	\$72,065	\$46,118
TOTAL, EXPENDITURES	\$3,147,780	\$3,686,625	\$3,734,742	\$3,715,620	\$2,693,707
GENERAL FUND SURPLUS (DEFICIT)	(\$635,529)	(\$696,595)	(\$392,760)	(\$462,201)	(\$480,628)

Note 1
Population, Employment and Daytime Population Estimate
Alternative I--Draft General Plan

Item	Assumptions	Projected at 2010
Existing Population	4,778	
Existing Employees	1,101	
Existing Daytime Population	5,329	
Future Population		7,661
Future Employment		2,467
Future Daytime Population		8,895

(1) Daytime population equals total population and half of employment.

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Note 2
Sales Tax and Transportation Tax Revenue Estimates
Alternative I--Draft General Plan

Description	Assumptions	Projected Revenue at 2010	Other Subcalculations		
Revenue From New Retail Development					

SALES AND USE TAX RATE	1.05%				
Taxable Sales per Retail Sqft	\$160				
Occupied Retail Space (Sqft)	153,140				
Total Taxable Sales	\$24,502,400				
Sales Tax Revenue		\$257,275			
TRANSPORTATION TAX RATE	0.25%				
Taxable Sales per Retail Sqft	\$160				
Occupied Retail Space (Sqft)	153,140				
Total Taxable Sales	\$24,502,400				
Transportation Tax Revenue		\$61,256			

Market Support Approach- for comparison purposes			Per Capita Income Assumptions		
-----			-----		
Per Capita Retail Expenditures	\$5,561		Yolo County-CCSCE		
Capture in Winters	50%		-----		
Daily Sales per New Employee	\$8.00		1989 Per Capital Income		
Capture in Winters	60%			\$17,987	
Work Days per year	250			1991 Estimate	\$19,831
New Population	7,661		Adjusted Estimate for Model		
New Employees	2,467				\$16,852
			Zephyr Estimates		
Sales due to New Population	\$21,302,579		-----		
Sales due to New Employment	\$2,960,513		Yolo County - 1990		
Total Sales Support	\$24,263,092			\$12,682	
			Winters Trade Area		
				\$10,777	85%
Sales support as a percent of taxable sales from retail space					
99%					

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Note 3
Transient Occupancy Tax Revenue Estimate
Alternative I--Draft General Plan

Description	Assumptions	Projected Revenue at Buildout
Transient Occupancy Tax Rate (1)	10.0%	
Average Hotel roomrate	\$25	
Occupancy Rate	60%	
New hotel rooms	50	
Transient Occupancy Tax Revenue		\$27,375

(1) The City is considering implementing a Transient Occupancy Tax Ordinance.

Note 4
Property Transfer Tax Revenue Estimate
Alternative I--Draft General Plan

Description	Assumptions	Projected Revenue at 2010
Rate per \$1,000 value	\$1.10	
Turnover rate	10.0%	
SF Residential A.V. at 2010	\$487,500,000	
SF Residential AV which turnover in 2	\$48,750,000	
Real Property Transfer Tax		\$53,625

Note 5
Police Services Costs Estimates
Alternative I--Draft General Plan

Description	Assumptions	Projected Expenditures at 2010
Existing Population	4,778	
1990-91 Sworn Police Officers	8	1.7
Preferred Standard Ratio of Officers per 1,000 Population (1)	1.8	
1990-91 Expenditures	\$545,347	
Staff Cost per Sworn Officer	\$68,168	
Annual Maintenance cost per vehicle	\$7,500	
Ratio of vehicles per officer	0.5	
New Sworn Officers Needed For New Development		13.8
New Staff Cost		\$940,053
New Vehicle Maintenance Costs		\$51,713
Total New Police Costs		\$991,766

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Note 6
Fire Services Costs Estimates
Alternative I--Draft General Plan

Item	Assumptions	Projected Expenditures at 2010
Existing City Funded Fire Services Cos	\$186,117	
Existing County Funded Fire Services C	69,000	
Total Fire Services Costs	255,117	
Existing Fire Services Sworn Staff	3.00	
Existing Cost per Sworn Staff	\$85,039	
New Staffing Requirements and Costs(1)Avg. Salaries (2)		
.5 Fire Chief	\$68,250	34,125
1 training officer	\$36,250	\$36,250
1 fire prevention officer	\$36,250	\$36,250
4 fire captians	\$54,000	\$216,000
4 apparatus engineer	\$43,500	\$174,000
4 firefighters	\$40,500	\$162,000
Total Sworn Staff - 14	NA	\$658,625
Overhead	20%	\$131,725
New Staffing Costs		\$790,350

(1) The cost of providing fire services is assumed to be completely funded by the General Fund although the City may contract for these services may be contracted for with the Winters Fire District. The City is currently studying the possibility of providing fire services directly. Regardless of who pays for the services, the cost would be the same.

(2) Includes cost of insurance and benefits and annaul equipment costs.

Note 7
Public Works: Street Maintenance Costs
Alternative I--Draft General Plan

Description	Assumptions	Projected Expenditures at 2010
Street Maintenance		

Existing Street Miles	18	
1990-91 Expenditures	\$40,009	
Cost per existing street mile	\$2,223	
Net New Street Miles at 2010	25.4	
Additional Street Maintenance Costs		\$56,434

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Appendix C:

**WILDLIFE LIST:
SPECIES POTENTIALLY OCCURING AT
PUTAH CREEK NEAR WINTERS**

Wildlife Species Potentially Occurring at Putah Creek Near Winters

BIRDS

Double-crested cormorant	<u>Phalacrocorax auritus</u>
Green-backed heron	<u>Butorides striatus</u>
Black crowned night heron	<u>Nycticorax nycticorax</u>
Great blue heron	<u>Ardea herodias</u>
Wood duck	<u>Aix sponsa</u>
Green-winged teal	<u>Anas crecca</u>
Mallard	<u>Anas platyrhynchos</u>
Northern pintail	<u>Anas acuta</u>
Cinammon teal	<u>Anas cyanoptera</u>
Gadwall	<u>Anas strepera</u>
American wigeon	<u>Anas americana</u>
Common goldeneye	<u>Bucephela clangula</u>
Bufflehead	<u>Bucephela albeola</u>
Hooded merganser	<u>Lophodytes cucullatus</u>
Common merganser	<u>Mergus merganser</u>
Red-breasted merganser	<u>Mergus serrator</u>
Black shouldered kite	<u>Elanus caeruleus</u>
Sharp-skinned hawk	<u>Accipiter striatus</u>
Cooper's hawk	<u>Accipiter cooperii</u>
Red-shouldered hawk	<u>Buteo lineatus</u>
Swainson's hawk	<u>Buteoswainsoni</u>
Red-tailed hawk	<u>Buteo jamaicensis</u>
American kestrel	<u>Falco sparverius</u>
California quail	<u>Callipepla californica</u>
Ring-necked pheasant	<u>Phasianus colchicus</u>
Killdeer	<u>Charadrius vociferus</u>
Coot	<u>Fulica americana</u>
Virginia rail	<u>Rallus limicola</u>
Sora rail	<u>Porzana carolina</u>
Rock dove	<u>Columbia livia</u>
Mourning dove	<u>Zenaida macroura</u>
Common barn owl	<u>Tyto alba</u>
Great horned owl	<u>Bubo virginianus</u>
Long-eared owl	<u>Asio otus</u>
Anna's hummingbird	<u>Calypte anna</u>
Black-chinned hummingbird	<u>Archilochus alexandri</u>
Belted kingfisher	<u>Ceryle alcyon</u>
Acorn woodpecker	<u>Melanerpes formicivorous</u>
Yellow-bellied sapsucker	<u>Sphyrapicus varius</u>
Nuttall's woodpecker	<u>Picoides nutallii</u>
Downy woodpecker	<u>Picoides pubescens</u>
Hairy woodpecker	<u>Picoides villosus</u>
Northern flicker	<u>Colaptes auratus</u>

Western wood pewee
 Black phoebe
 Western kingbird
 Violet green swallow
 Cliff swallow
 Barn swallow
 Scrub jay
 Yellow-billed magpie
 American crow
 Plain titmouse
 Bushtit
 White-breasted nuthatch
 Red-breasted nuthatch
 Brown creeper
 House wren
 Berwick's wren
 Blue grey gnatcatcher
 Ruby-crowned kinglet
 Hermit thrush
 Swainson's thrush
 American robin
 Western bluebird
 Northern mockingbird
 Cedar waxwing
 European starling
 Hutton's vireo
 Solitary vireo
 Warbling vireo
 Orange-crowned warbler
 Yellow warbler
 Wilson's warbler
 Yellow warbler
 Yellow-rumped warbler
 Hermit warbler
 Magillivray's warbler
 Common yellowthroat
 Nashville warbler
 Yellow-breasted chat
 Wilson's warbler
 Black-headed grosbeak
 Lazuli bunting
 Lesser goldfinch
 Rufous-sided towhee
 Brown towhee
 Fox sparrow
 Song sparrow

Contopus sordidulus
Sayornis nigricans
Tyrannus verticalis
Tachycineta thalassina
Hirundo pyrrhonota
Hirundo rustica
Aphelocoma coerulescens
Pica nuttalli
Corvus brachyrhynchos
Parus inornatus
Psaltiriparus minimus
Sitta carolinensis
Sitta canadensis
Certhia americana
Troglodytes aedon
Thryomanes bewickii
Poliophtila coerulea
Regulus calendula
Catharus guttatus
Catharus ustulatus
Turdus migratorius
Sialia mexicana
Mimus polyglottos
Bombycilla cedrorum
Sturnus vulgaris
Vireo huttoni
Vireo solitarius
Vireo gilvus
Vermivora celata
Dendroica petechia
Wilsonia pusilla
Dendroica petechia
Dendroica coronata
Dendroica occidentalis
Oporornis tolmiei
Geothlypis trichas
Vermivora ruficapilla
Icteria virens
Wilsonia pusilla
Pheucticus melanocephalus
Passerina amoena
Carduelis psaltria
Pipilo erythrophthalmus
Pipilo fuscus
Passerella iliaca
Melospiza melodia

Golden-crowned sparrow
White-crowned sparrow
Dark-eyed junco
Red-winged blackbird
Western meadowlark
Brewer's blackbird
Brown-headed cowbird
Northern oriole
House finch
House sparrow

MAMMALS

Virginia opossum
Ornate shrew
Broad-footed mole
Little brown bat
Small-footed bat
Yuma bat
Brazilian free-tailed bat
Audobon's cottontail
Botta's pocket gopher
Beaver
Muskrat
Deer mouse
Black rat
Coyote
Gray fox
Raccoon
Ringtail
Long-tailed weasel
Striped skunk

AMPHIBIANS

California newt
California newt salamander
Western toad
Pacific treefrog
Bullfrog

REPTILES

Western pond turtle
Western fence lizard
Gopher snake
Western aquatic garter snake
King snake

Zonotrichia atricapilla
Zonotrichia leucophrys
Junco hyemalis
Agelaius phoeniceus
Sturnella neglecta
Euphagus cyanocephalus
Molothrus ater
Icterus galbula
Carpodacus mexicanus
Passer domesticus

Didelphis virginiana
Sorex ornatus
Scapanus latimanus
Myotis lucifugus
Myotis leibii
Myotis yumanensis
Tadarida brasiliensis
Sylvilagus audubonii
Thomomys bottae
Castor canadensis
Ondatra zibethicus
Peromyscus maniculatus
Rattus rattus
Canis latrans
Urocyon cinereoargenteus
Procyon lotor
Bassariscus astutus
Mustela frenata
Mephitis mephitis

Taricha tarosa
Batrachoseps attenuatus
Bufo boreas
Hyla regilla
Rana catesbeiana

Clemmys marmorata
Sceloporus occidentalis
Pituophis melanoleucus
Thamnophis couchii
Lampropeltis getulus

Historical Fish Species of Putah Creek

<u>Alosa sapidissima</u>	American shad
<u>Ictalurus nebulosus</u>	Brown bullhead
<u>Catostomus occidentalis</u>	Sacramento sucker
<u>Cottus sp.</u>	Sculpin
<u>Cyprinus carpio</u>	Carp
<u>Entosphenus tridentatus</u>	Pacific lamprey
<u>Gambusia affinis</u>	Mosquitofish
<u>Hesperoleucus symmetricus</u>	California roach
<u>Ictalurus catus</u>	White catfish
<u>Lepomis cyanellus</u>	Green sunfish
<u>Lepomis macrochirus</u>	Bluegill
<u>Micropterus dolomieu</u>	Smallmouth bass
<u>Mylopharodon conocephalus</u>	Hardhead
<u>Oncorhynchus tshawytscha</u>	Chinook salmon
<u>Ptychocheilus grandis</u>	Sacramento squawfish
<u>Rhinichthys osculus</u>	Speckled dace
<u>Salmo gairdnerii</u>	Rainbow trout

*Data from Shapvalov, 1946
Source: Sutter, 1986

Sources: Putah Creek Advisory Committee, 1989.
Environmental Scona Associates, 1988.

Appendix D:

**MITIGATION GUIDELINES FOR SWAINSON'S HAWKS
IN THE CENTRAL VALLEY OF CALIFORNIA**

**Mitigation Guidelines for Swainson's Hawks (*Buteo swainsoni*)
in the Central Valley of California**

CURRENT AND RECOMMENDED MANAGEMENT

The Department of Fish and Game has established the mitigation goal of no net loss of Swainson's hawk breeding or foraging habitat, and has developed the following strategies and mitigation criteria to reverse the dramatic population decline of this species in the Central Valley. These criteria provide guidelines for lead agencies and project sponsors to follow in developing adequate mitigation for the loss of Swainson's hawk habitat. Direction for management towards restoration of this species is also included within this document. These guidelines are to be considered interim and will remain in effect until a comprehensive Swainson's Hawk Habitat Conservation Plan (HCP) is completed by the Department. The scheduled completion date for this plan is Fall 1992. Several HCP's for Swainson's hawk within specific project areas are currently being proposed. These guidelines will be used in conjunction with a Swainson's Hawk Recovery Plan to establish criteria for species recovery through population expansion into former habitat, recruitment of young into the population, and other identified recovery goals. Currently, translocation of active nests will not be considered a viable option to enable development to proceed. Hacking (controlled release) of captive reared young has not been employed to enhance the population at this time.

During project review, the Department will consider whether suitable foraging habitat occurs within a ten (10) mile radius of an active nest and contributes to maintaining that Swainson's hawk breeding territory. This ten-mile radius standard was developed from Department funded telemetry studies. It is considered to be a conservative estimate of the average flight distance from known active nest sites to suitable foraging habitats within the home range of a Swainson's hawk. Therefore, proposed development projects may be required to mitigate impacts at active nest sites and surrounding suitable feeding habitat areas; both of which are essential to the integrity of the breeding territory. In addition, since over 95% of Swainson's hawk nests occur on private land, a program of incentives for the private landowner is needed to ensure that crops which are compatible to the foraging needs of Swainson's hawks are not replaced by incompatible agriculture practices, urbanization, or other land uses.

If you have any questions, please contact Ms. Sherry Teresa, Environmental Services Wildlife Biologist, Region 2, (916) 355-7030, or Mr. Ron Schlorff, Nongame Section, Wildlife Management (916) 322-1261.

LEGAL STATUS

The Swainson's hawk is a migratory bird species protected under the Migratory Bird Treaty Act (MBTA) of 1918 (16 U.S.C. 703-711). The MBTA makes it unlawful to take, possess, buy, sell, purchase, or barter any migratory bird listed in 50 C.F.R. Part 10, including feathers or other parts, nests, eggs, or products, except as allowed by implementing regulations (50 C.F.R. 21). The Swainson's hawk is designated as a Candidate species for listing by the U.S. Fish and Wildlife Service under the federal Endangered Species Act (ESA; 16 U.S.C. 1513-1543). The State of California listed the Swainson's hawk as a Threatened species, thus providing them protection under the California Endangered Species Act [CESA] (Chapter 1.5 Fish and Game Code). In addition, Sections 3503, 3503.5, 3800 of the Fish and Game Code prohibit the take, possession, or destruction of birds, their nests or eggs. The DFG has interpreted the "take" clause in the CESA to include the destruction of either nesting and/or foraging habitat necessary to maintain the reproductive effort. Implementation of the take provisions of the CESA requires that project-related disturbance at active Swainson's hawk territories be reduced or eliminated during critical phases of the nesting cycle (March 1 - August 15 annually). Disturbance that causes nest abandonment and/or loss of reproductive effort (e.g., killing or abandonment of eggs or young) is considered "taking" and is punishable by fines and/or imprisonment. Such taking would also violate federal law protecting migratory birds (e.g., MBTA).

The California Environmental Quality Act (CEQA) requires a mandatory findings of significance if impacts to threatened or endangered species are likely to occur (Sections 21001(c), 21083. Guidelines 15380, 15084, 15085). Avoidance or mitigation must be presented to reduce impact to less than significant levels (See Mitigation Criteria #2.).

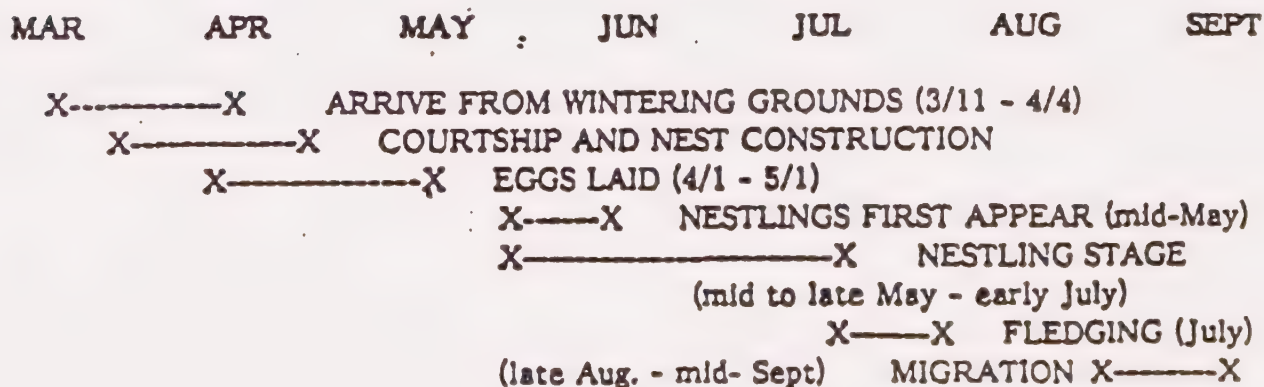
NATURAL HISTORY

The Swainson's hawk is a large broadwinged buteo which frequents open country. Approximately the same size as a red-tailed hawk (*Buteo jamaicensis*), but trimmer, Swainson's hawks weigh approximately 800 - 1100 gm. (1 3/4 - 2 lbs) , and have about a 125 cm. (4+') wingspan. The basic body plumage may be highly variable and is characterized by several color phases - light, dark, and rufous. In dark phase birds, the entire body of the bird may be sooty black. Adult birds generally have dark backs. The ventral or underneath sections may be light with a characteristic dark, wide "bib" from the lower throat down to the upper breast. The tail is gray ventrally with a subterminal dusky band, and narrow, less conspicuous barring proximally. The sexes are similar in appearance; females however, are slightly larger than males, as is the case in most sexually dimorphic raptors. There are no recognized subspecies (Palmer 1988).

The Swainson's hawk is a long distance migrator, leaving nesting grounds in northwestern Canada, the western U.S. and Mexico, most populations migrate to wintering grounds in the open pampas areas of South America (Argentina, Uruguay, southern Brazil). This round trip journey may exceed 14,000 miles. The birds will return to the nesting grounds in early March to establish breeding territories.

Swainson's hawks are monogamous and will remain so until the loss of a mate (Palmer 1988). Nest construction and courtship continues through April. The clutch (commonly 3-4 eggs) is laid in early-April to early-May. Incubation lasts 34-35 days, with both parents participating in the brooding of eggs and young. The young leave the nest approximately 42-44 days after hatching (June - July). The young remain with their parents and gain hunting practice until they depart on migration in the fall.

Reproductive Chronology *



* data from J. Estep 1989.

FORAGING REQUIREMENTS

Swainson's hawk nests in the Central Valley of California are generally found in scattered trees or along riparian systems adjacent to agricultural fields or pastures. These open fields and pastures are the primary forage areas. Major prey items for Central Valley birds include: California voles (*Microtus californicus*), valley pocket gophers (*Thomomys bottae*), deer mice (*Peromyscus maniculatus*), California ground squirrels (*Spermophilus beecheyi*), mourning doves (*Zenaidura macroura*), ring-necked pheasants (*Phasianus colchicus*), meadowlarks (*Sturnella neglecta*), other passerines, grasshoppers (*Conocephalinae*), crickets (*Gryllidae*), and alphadids (Estep 1989). Swainson's hawks generally search for prey by soaring in open country and agricultural fields similar to northern harriers (*Circus cyaneus*) and ferruginous hawks (*Buteo regalis*). Often many hawks may be seen foraging together following tractors or other farm equipment capturing prey escaping from farming operations. During the breeding season, Swainson's hawks eat mainly vertebrates (small rodents and reptiles), whereas during migration vast numbers of insects are consumed (Palmer 1988).

Department of Fish and Game funded research has documented the importance of suitable foraging habitats (e.g., native grasslands, lightly-grazed pastures, alfalfa and other hay crops, and combinations of hay grain and row crops) within an energetically efficient flight distance from active Swainson's hawk nests (Estep pers. comm.). Recent telemetry studies to determine foraging requirements have shown that birds may require in excess of 15,000 acres of habitat or range up to 18.0 miles from the nest in search of prey (Estep 1989). The area needed for foraging is determined by crop types, agricultural practices, harvesting regimes, prey abundance and availability. Estep (1989) found that 73.4% of observed prey captures were in fields being harvested, disced, mowed or irrigated. Some of the preferred foraging habitats for Swainson's hawks include: (1) Alfalfa - low prey abundance but steady prey accessibility. (2) Fallow fields - high prey abundance and prey accessibility if not dominated by thistle. (3) Beet and Tomato fields - largest prey populations but dense cover reduces prey accessibility, except during harvesting operations when Swainson's hawks have been observed foraging almost exclusively in these fields from late-July to early-September. (4) Dry-land pasture provided the primary forage area for 1 radioed pair, and appears to be an important foraging area. (5) Irrigated pasture provides some forage habitat, especially during flooding. Unsuitable foraging habitat types include any crop where prey are not available due to the high density of vegetation, or have low abundance of prey such as rice fields, vineyards, orchards, and cotton fields.

NESTING REQUIREMENTS

Swainson's hawks nest throughout most of the floor of the Central Valley, although nesting habitat is fragmented and unevenly distributed. More than 85% of the known nests in the Central Valley are within riparian systems in Sacramento, Yolo, and

San Joaquin Counties. Much of the potential nesting habitat remaining in this area is in riparian forests, lone trees, oak groves, and roadside trees. The riparian areas are generally adjacent to and within easy flying distance to alfalfa or hay fields. Department research has shown that valley oaks (*Quercus lobata*), Fremont's cottonwood (*Populus fremontii*), willows (*Salix spp.*), sycamores (*Platanus spp.*), and walnut (*Juglans spp.*) are the preferred nest trees for Swainson's hawks (Bloom 1980, Estep 1989).

HISTORICAL AND CURRENT POPULATION STATUS

The Swainson's Hawk was historically (ca 1900) regarded as one of the most common and numerous raptor species in the state, so much so that they were often not given special mention in field notes. The breeding population has declined by an estimated 91% in California since the turn of the century (Bloom 1980). The historical Swainson's hawk population estimate, based on current densities and estimates of former available habitat, is 4,284 - 17,136 pairs (Bloom 1980). In 1979, approximately 375 \pm 50 breeding pairs of Swainson's hawks were estimated in California, and 280 (75%) of those pairs were estimated to be in the Central Valley (Bloom 1980). In 1988, 241 active breeding pairs were found in the Central Valley, with an additional 78 active pairs known in northeastern California. The 1989 population estimate was 430 pairs for the Central Valley and 550 pairs statewide. *This difference in population estimates reflect increased survey intensity, not an actual population increase.*

REASONS FOR DECLINE

The dramatic population decline from historic levels has been attributed to loss of native nesting and foraging habitat, and more recently from the conversion of agriculture to urban uses, changes to incompatible crop types and loss of suitable nesting trees. In addition, pesticides, shooting, disturbance at the nest site, and other disturbances on wintering areas may have contributed to their decline. The loss of nesting habitat within riparian areas has been accelerated by flood control practices and bank stabilization programs. Smith (1977) estimated that in 1850 over 770,000 acres of riparian habitat were present in the Sacramento Valley alone. Today less than 12,000 acres of riparian habitat remain. A 98% decrease in riparian vegetation has been documented within the Central Valley (Katibah 1983).

In summary, management needs of the Central Valley population of Swainson's hawks include ensuring the availability of suitable nesting habitat through the 1) preservation and recruitment of suitable nesting trees, 2) protection of existing nesting habitat from destruction or disturbance, 3) maintenance of compatible agricultural practices to preserve forage habitat, and 4) mitigation for loss of breeding and/or foraging habitat. Coordination and cooperation with local agencies must be continued to prevent further habitat destruction from development projects.

MITIGATION CRITERIA

GOAL: NO NET LOSS OF SWAINSON'S HAWKS NESTING OR FORAGING HABITAT

I. Consultation under California Environmental Quality Act (CEQA) and/or California Endangered Species Act (CESA).

1. Project Consultation

Project proponent must consult with the DFG regarding take of an endangered species or its habitat pursuant to Section 2081 of CESA, and appropriate Fish and Game Code Sections.

A. Pursuant to Article 4 of CESA, State agencies are required to consult with the DFG to ensure that any action authorized, funded or carried out by that state agency will not jeopardize the continued existence of any endangered species.

2. CEQA and Subdivision Map Act

Project proponents are encouraged to consult the Department's California Natural Diversity Data Base and Nongame Section to receive updated locational information regarding active Swainson's hawk territories. Due to the complexities of individual cases, it is advisable that developers or others planning projects or actions that may impact one or more Swainson's hawk territories initiate communication with the Department as early as possible.

A. CEQA Guidelines Sec. 15065 directs that a mandatory finding of significance is required for projects that have the potential to substantially degrade or reduce the habitat of, or restrict the range of a threatened or endangered species. CEQA requires agencies to implement feasible mitigation measures or feasible alternatives identified in EIR's for projects which will otherwise cause significant adverse impacts (Sections 21002, 21081, 21083; Guidelines, sections 15002, subd. (a)(3), 15021, subd. (a)(2), 15091, subd. (a)).

To be legally adequate, mitigation measures must be capable of "avoiding the impact altogether by not taking a certain action or parts of an action"; "minimizing impacts by limiting the degree or magnitude of the action and its implementation"; "rectifying the impact by repairing,

rehabilitating or restoring the impacted environment"; "or reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action." (Guidelines, section 15370).

B. Section 66474 (e) of the Subdivision Map Act states "a legislative body of a city or county shall deny approval of a tentative map or parcel map for which a tentative map was not required, if it makes any of the following findings:...(e) that the design of the subdivision or the proposed improvements are likely to cause substantial environmental damage or substantially and avoidably injure fish and wildlife or their habitat". In recent court cases, the court upheld that Section 66474(e) provides for environmental impact review separate from and independent of the requirements of CEQA (Topanga Assn. for a Scenic Community v. County of Los Angeles, 263 Cal. Rptr. 214 (1989)). The finding in Section 66474 is in addition to the requirements for the preparation of an EIR or Negative Declaration.

II. Maintenance of breeding pairs and their habitat.

1. Prevention of disturbance at the nest site.

A. No disturbance should occur within 1/2 mile of an active nest between March 1 - August 15. If the nest tree is to be removed and fledglings are present, the nest tree may not be removed until September 15. If construction or other project related activities which may cause nest abandonment or forced fledging are proposed within this 1/2 mile buffer zone, intensive monitoring (funded by the project sponsor) by a Department approved raptor biologist will be required. Exact implementation of this measure will be based upon specific information at the project site.

2. Prevention of loss of nest trees.

A. Projects should be designed to avoid direct and indirect impacts to nest trees.

B. Revegetation of historical nesting habitat with suitable native nest trees species (e.g., oaks, cottonwoods, sycamores, etc.) adjacent to adequate forage habitat shall

be undertaken.

3. Maintenance of sufficient foraging habitat to support breeding pairs and successful fledging of young.

A. Impact avoidance and project alternatives must be thoroughly analyzed and discussed with DFG representatives prior to adverse modification of foraging habitat as required by CEQA (Section 21002; Guidelines sec.15002, 15021,15126, 21100). This discussion must focus on alternatives capable of either eliminating any significant adverse environmental effect or reducing them to a level less than significant, even if such alternatives would be more costly or to some degree impede the projects objectives.

B. Potential foraging areas are described as identified foraging habitat types located within a 10-mile radius from an active Swainson's nesting territory. Any adverse modification of these foraging areas may require mitigation for loss of foraging habitat. The criteria for assessing this mitigation is as follows:

a. Territory must have been used at least once historically (as determined by DFG Swainson's hawk nesting records).

b. Mitigation will be required for all lands within the defined foraging area (10 miles), excluding the following: Lands which are currently in urban use or lands that have no existing or potential value for foraging Swainson's hawks as determined by site specific surveys by a DFG qualified raptor biologist.

c. Mitigation for foraging areas shall be no less than a 0.5:1 acre ratio (i.e., 0.5 acre replacement for each 1 acre loss of habitat). This ratio is based on the premise that Swainson's hawk foraging habitat values can be at least doubled on mitigation lands through appropriate agricultural plantings, and sound land management practice. Increased mitigation ratios may be necessary in certain instances in order to maintain adequate foraging habitat to support Swainson's hawk populations or if a project site provides breeding or forage habitat for more than one

pair. Habitat conservation plans for several areas are currently being prepared which may identify new information regarding habitat requirements for nesting pairs. Therefore, these criteria are to be considered interim guidelines and mitigation ratios may increase for future projects based on additional information from scientific research on this species.

4. Retention of Habitat

Retain and create sufficient quality habitat to maintain existing population levels and to allow for future population increases to meet recovery goals for the Swainson's hawk (as to be determined by the Swainson's Hawk Recovery Plan).

A. Restoration and enhancement of Swainson's hawk nesting and foraging habitats through the creation and establishment of mitigation banks.

a. Mitigation banks must meet the following minimum criteria:

1. Minimum acreage size of 1,200 contiguous or semi-contiguous acres of undeveloped land. Smaller individual projects may participate in mitigation banks or fee assessment programs to acquire the minimum acreage needed to support a nesting pair.

2. Creation or enhancement of riparian woodlands may be required for some projects. These riparian areas should be not less than 100' wide, with the successful establishment of native riparian species, such as: cottonwoods, oaks, sycamores, and willows. Revegetation plans submitted by the project sponsor shall include but is not limited to the following:

1. Tree densities
2. Species compositions
3. Amount of cover
4. Compensated revegetation for loss due to fire or pests

3. Agriculture practices shall be incorporated into the bank or mitigation area to produce crop types such as but not limited to: alfalfa, dry pasture or native grasslands with little to no grazing, disced fields with hedge rows left approximately every 100 feet, and tomato/bean/row crop fields, or other crops which are compatible for foraging Swainson's hawks.

4. Fee title to land or permanent conservation easements obtained for the Department of Fish and Game, or its designee.

5. Management and operation plans must be incorporated with the mitigation plan and implemented by the project proponent prior to project construction.

6. Project proponent would be responsible for the successful establishment of Swainson's hawk nesting/foraging areas in perpetuity. Monitoring programs will require an annual written review submitted to the DFG for the first 5 years, and thereafter written reviews will be required every 3-5 years for private mitigation projects.

III. Restoration of Swainson's hawk population.

1. Support and acquire funding to continue research related to breeding success, contaminants, dispersal, movement, mortality, habitat use, and other identified research needs. Responsibility: DFG Nongame Bird and Mammal Section.

2. Development and completion of a Habitat Conservation Plan and a Recovery Plan. Responsibility: DFG Nongame Bird and Mammal Section.

3. Coordinate with local agencies for long term planning to maintain sufficient quality habitat for Swainson's hawks. Responsibility: DFG Nongame Bird and Mammal Section and Regional Environmental Services staff.

A. Maintain close coordination with city and county agencies, other state agencies, local agricultural districts, federal agencies, and private conservation organizations to organize a concerted land use plan sensitive to the need of the Swainson's hawk and other listed or sensitive species.

B. Protect and maintain agricultural preserves.

C. Coordinate management planning with responsible agencies.

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Appendix E:

**GENERAL COMPENSATION GUIDELINES FOR THE
VALLEY ELDERBERRY LONGHORN BEETLE**

General Compensation Guidelines for the
Valley Elderberry Longhorn Beetle

Avoid Habitat Whenever Possible

1. Fence and flag each clump or cluster of elderberry plants so that the construction crew can avoid the plants. Brief contractors on the requirements to avoid damaging the plants and the possible penalties for not complying with these provisions. Areas should be signed as necessary ("This area is habitat of the valley elderberry longhorn beetle, a threatened species, and must not be disturbed. This species is protected by the Endangered Species Act of 1973, as amended. Violators are subject to prosecution, fines and imprisonment.")

If elderberry bushes cannot be avoided, then undertake the following:

Transplant elderberries

All elderberry plants with evidence of beetle use (i.e., emergence holes or presence of adults) will be transplanted to the compensation site. In some cases, a tree that would be extremely difficult to remove because of access problems or one that is in such poor condition that it is unlikely to survive being transplanted, at the Service's discretion may be exempted from this requirement; however, stems greater than 1.5 inches in diameter will still require replacement at the given ratio (see below) regardless of whether or not the tree is transplanted.

1. Timing.--Elderberries with stems equal to or greater than 1.5 inches in diameter should be transplanted when the plant is dormant (approximately November through the first two weeks in February) after the trees have lost their leaves and, thus, the plants essentially are not transpiring or actively growing. Planting during the non-growing season will reduce the shock to the plant and increase transplantation success. To attempt to induce more flexibility into the transplantation option, the Service will review the results of a compensation program scheduled to begin in late summer 1988 using material transplanted during the non-dormant season. Pending review of the results, the Service may modify this requirement so that it is more flexible. In the meantime, because the present state of

our knowledge indicates the likelihood of successfully transplanting elderberries during non-dormancy is quite small, transplanting should be done during the dormant period.

2. Procedure to plant elderberry trees and stems.

a. Cut tree back to 3 to 6 feet from the ground or to 50 percent of its height (whichever is greater) by removing branches and stems above this height. The trunk and all stems greater than 1.5 inches in diameter (measured 1 to 6 inches from the ground surface) will be replanted;

b. If evidence of the beetle is present, place cut branches and stems in a pile next to where the elderberry will be transplanted or near elderberries not to be cut or moved. If no emergence holes or adults are observed during the survey, it is not necessary to move the cut stems. However, if during the course of trimming the trees back, the presence of galleries (tunnels excavated by the beetle larvae inside the elderberry stems and trunks) are detected, then the pruned material should be moved and placed next to the transplanted elderberries. Depending on the larval stage, some larvae may continue to develop and eventually emerge from the pruned material;

c. Excavate a hole 3 to 4 feet deep to receive the planting;

d. Dig plant up using Vemeer spade, backhoe, front end loader, or other suitable equipment, taking as much of the root ball as possible, and replant immediately at the compensation site. Move plant only by the root ball. If the plant is to be moved and transplanted off site, wrap the root ball in burlap and secure with wire. Dampen burlap with water, as necessary, to keep root ball wet;

e. Construct a circular water retention basin from the excavated earth about 8-10 feet in diameter and 12 to 14 inches high. In the center of each water basin, plant the main trunk of an elderberry. After removing the burlap and wire (if any), plant the root ball so it is level with the existing ground. Compact the soil sufficiently so that settlement does not occur. Other stems that have been rooted should be planted in the water basins at a rate of either 6 stems (non-dormant season) or 3 stems (dormant season) per basin with stems about 3 feet apart around the circumference of the basin. These stems should be planted about 3 to 4 feet from the main trunk. The higher number of stems (6 per basin plus trunk) is required if the Service approves transplantation during the elderberry growing season;

f. Saturate soil with water (water basins should

be spaced 35-40 feet apart). Do not use fertilizers or other supplements or paint the tips of stems with pruning substance as the effects of these compounds on the beetle are unknown;

g. Monitor to ascertain if additional watering is necessary:

1. if sandy, well-drained soil, plants may need to be watered weekly or possibly twice monthly;

2. if clay, poorly-drained soil, it may not be necessary to water after the initial saturation.

A drip watering system and timer would be ideal. However, in situations where this is not possible, a water truck or other apparatus may be used.

3. Procedure to plant additional stems.--Each stem 1.5 inches or greater in diameter that is moved or destroyed will be replaced in the area selected as the compensation site using a ratio from 2:1 to 5:1. This replacement requirement applies even if the trunk and associated stems are transplanted. Replacement stock may be obtained from a variety of sources such as nursery stock or material transplanted or pruned from the elderberries on site. The ratio is dependent upon the habitat quality and quantity and is determined as follows:

Ratio of 2:1 In situations involving clusters of elderberries (a cluster is defined as a group of stems the majority of which are less than 1.5 inches in diameter with no main trunk; if the diameter of most stems is larger than this, it is treated as a clump; a clump is defined as usually having one main trunk often with a diameter more than 3 inches, with smaller or equal sized stems surrounding it). Clusters represent young trees and do not have as high a potential for current beetle use as do stems with larger diameters. Usually there is no evidence of beetle use in these young stems. Clusters, however, can rapidly mature to a size where beetle use would be anticipated.

Ratio of 3:1 Medium sized trees with stem diameters 1.5 inches or greater. Beetles are present as evidenced by emergence holes, but occur in less than 50 percent of the clumps or clusters.

Ratio of 5:1 Good quality habitat with beetle emergence holes present in more than 50 percent of the clumps. Prime trees may be characterized as tall (i.e., 30 feet or more), with old stumps (more than 3 inches in diameter), and with about 30 to 50 percent dead limbs.

In situations where the ratio based on the size of the stems is at variance with the percent of the clumps occupied by beetles, the latter criterion will prevail in determining the replacement ratio.

Replacement stems can be obtained from the pruned material when the above referenced trees are transplanted. Also, root cuttings, seeds planted in bullet tubes, or small sucker shoots can be used. Each plant can be placed in a small hole or a number of plants can be planted in a furrow to facilitate watering. Regardless of the planting regime, these plantings should be monitored and watered as described above to enhance establishment.

Example 1

Total number of elderberry clumps/clusters	20
Number of clumps/clusters with evidence of VELB	12
Number of stems greater than or equal to 1.5 in.	100
Compensation: Replanting with 500 stems (ratio of 5:1), transplant 12 elderberries.	

Example 2

Total number of elderberry clumps/clusters	10
Number of clumps/clusters with evidence of VELB	0
Number of stems greater than or equal to 1.5 in.	0
Compensation required - None	

Example 3

Total number of elderberry clumps/clusters	5
Number of clumps/clusters with VELB	0
Numbers of stems greater than or equal to 1.5 in.	15
Compensation required: Plant 30 stems (ratio 2:1).	

Example 4

Total number of elderberry clumps/clusters	25
Number of clumps/clusters with VELB	7
Number of stems greater than or equal to 1.5 in.	150
Compensation required: Plant 450 stems (ratio 3:1) and transplant 7 elderberries.	

Monitoring Program

All plantings on the compensation sites will be monitored during the growing season (March - September) to ascertain survival and growth rates for a period of five years from the date of the transplant. Results will be furnished the Service in a yearly written report, including dates of watering, growth rates, and mortality figures as well as a map of the site with an overlay of the transplanted stems and their status.

Replacement Program for Mortality

Plants that die or appear stunted or otherwise non-vigorous will be replaced on a yearly basis so that at the end of five years, the overall survival rate will be 80 percent. The Service will accept as a minimum the following plant mortalities without the need for replacement: at the end of the first year -- 5 percent of the number of original plants; at the end of the second year -- 10 percent of the original plants; at the end of the third and fourth years--15 percent of the original plants; and at the end of the fifth year--20 percent of the original plants. Plant mortality less than the above rates does not relieve the project proponent or delegated representative of the responsibility to maintain all viable plantings. The Service will make the determination as to the compensator's replacement responsibilities arising from circumstances beyond its control such as plants damaged or killed as the result of severe flooding or vandalism.

Selection of Compensation Sites for Transplantation and Revegetation

Sites for transplanting and revegetating elderberries must be selected so that future protection of the plants is assured. For example, this assurance could entail the project proponent obtaining a conservation easement for the property or purchasing it and deeding the property to a governmental entity to manage to maintain the habitat. Sites, in general, should be as close to the zone of impact as possible to reduce habitat fragmentation and subpopulation isolation. The Service should approve the location of the compensations site(s) prior to initiation of the revegetation effort.

Preference for Avoiding the Habitat

If trees are transplanted during the non-dormant season such as March or April and beetles are in the larger pruned limbs, these larvae probably will succumb if they are below the fifth larval instar in development. Should the transplantation be done, say in late summer, all larvae within the pruned material will die regardless of the stage of development. If the transplantation is done during the dormant season, any larvae in the part of the tree that is transplanted have a reasonable chance of survival if the tree lives. The same is true of any larvae located within the pruned material provided that they are in the fifth instar or pupal stage. Larvae in earlier developmental stages will die of desiccation, starvation, or predation. Therefore, it is of the utmost importance to avoid affecting elderberry plants wherever possible to minimize the impacts of incidental take.

Future Revisions

Revegetating with elderberries and the responses of the beetle to such revegetation efforts is a relatively new procedure. As data become available on which to evaluate this technique, revisions to these guidelines are anticipated.

Service Contact

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